

Kew-Royal Gardens

"

Hand list of
Coniferae

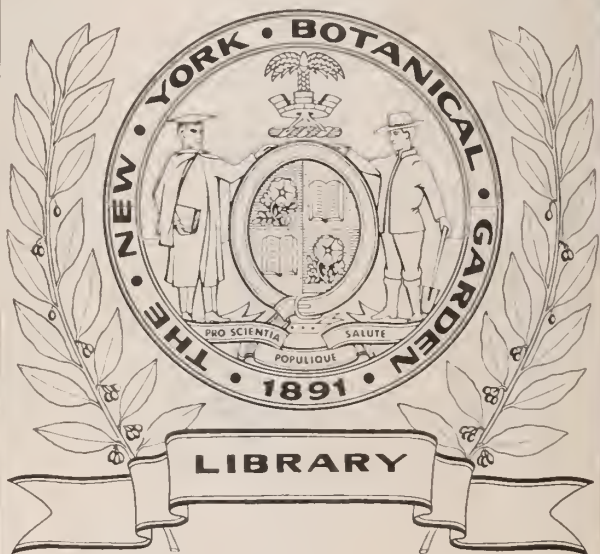
1896

OK
73
K4
A28

QK73

.K4

A28





ROYAL GARDENS, KEW.

Kew, Eng. Royal Botanic gardens

H A N D - L I S T

OF

CONIFERÆ

GROWN IN

THE ROYAL GARDENS.

LIBRARY
NEW YORK
BOTANICAL
GARDEN



LONDON:

SOLD AT THE ROYAL GARDENS, KEW.

PRINTED FOR HER MAJESTY'S STATIONERY OFFICE,
BY EYRE AND SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.

1896.

Price Threepence.

QK73

.K4

A28

PREFACE.

The present Hand-list might properly have formed part of that of the "Trees and Shrubs grown in the Arboretum," but so many persons possess collections of Conifers who are not interested in other ligneous plants that there was an obvious convenience in treating them separately. There was the further advantage that this enabled the species which are grown under glass to be included. The natural order, or rather group, *Coniferae*, is so well defined that it is desirable to enumerate in one list all the species actually in cultivation at Kew.

The present Hand-list comprises 227 species, with 340 varieties, belonging to 37 genera.

Sir Joseph Hooker, the late Director of the Royal Gardens, had contemplated the preparation of a Catalogue of the Kew Pinetum. In view of it he had drawn up a brief review of the literature of the subject, which he has now, after revision, kindly permitted to be used.

"In the following list the species are referred to the genera under which they have been placed by the latest authorities, who have revised the Order *Coniferae*. That such an authoritative list should be published is the wish of all intelligent cultivators of these interesting plants, and its publication in this country is rendered all the more needful from the fact that British cultivators alone persist in referring the Silver Firs to *Picea*, and the

Spruces to *Abies*, a practice long abandoned on the Continent, and which has not been adopted in America. And if, as I hope, the correct nomenclature will in future be adopted in regard to the Latin names of these genera, I would further urge a reform in respect of their English equivalents, in so far as to confine the use of the words Pine to the species of *Pinus*, of Spruce to those of *Picea*, and of Silver Fir to those of *Abies*. We should then be in accordance with the universal practice throughout North America, which is the head-quarters of all three genera, where a Pine is never called a Fir, nor a Fir called a Spruce, nor a Spruce a Pine.

The following historic sketch of the various essays of Botanists to limit the genera and species of *Abietineæ*, shows how divergent have been their views. I have endeavoured to make it more instructive, by giving (where there are materials for doing so) under each attempt the number of species known to its author, thus further showing the progressive discovery of species during the last hundred and eighty years or thereabouts.

Tournefort, in 1717, indicated the three genera *Abies*, *Pinus*, and *Larix* (including *Cedrus*); and his *Cedrus* is *Juniperus*.

Linnaeus, in 1753, included these all under *Pinus*, of which he enumerated 10 species.

In 1731 the first edition of *Miller's Gardener's Dictionary* appeared, where he has *Pinus*, *Cedrus*, *Larix* and *Abies*, with 16 species in all.

In 1789 A. L. de Jussieu, in his *Genera Plantarum* has only two genera, *Pinus* and *Abies*.

In the same year the first edition of Aiton's *Hortus Kewensis* appeared, wherein all the *Abietineæ* (19 species) are included under *Pinus*.

In 1803 was published the first edition of Lambert's *Genus Pinus*, containing about 35 species of *Abietineæ*, all included under *Pinus*.

In 1813 the second edition or the *Hortus Kewensis* appeared, in which, as before, all the *Abietineæ*, (increased to 29) are included under *Pinus*.

In 1826 Louis Claude Richard's *Mémoire sur les Conifères* was edited by his son. This classical work is the earliest that dealt scientifically with the order *Coniferae*, and in it the Tribe *Abietineæ* was first established, to include *Pinus* (under which were placed Spruces and Silver Firs), and *Larix* (which included the cedars), to these were added, *Cunninghamia*, *Agathis* (*Dammara*), and *Araucaria*, which now form a distinct Tribe.

In 1827 Link, in the *Journal of the Academy of Sciences of Berlin*, proposed the five genera: *Pinus*, *Picea* (for Spruces), *Abies* (for Silver Firs), *Larix*, and *Cedrus*.

In 1832 the second edition of Lambert's *Genus Pinus* appeared, wherein the *Abietineæ* were all, as before, included under *Pinus*; which however was broken up by David Don (Lambert's Herbarium keeper) into six sections, *Pinus*, *Strobilus*, *Abies* (for the Spruces), *Picea* (for the Silver Firs and Tsugas), *Larix*, and *Cedrus*. About 48 species in all are described.

In 1838 Loudon's great work, the *Arboretum et Fruticetum Britannicum* appeared. The Tribe *Abietineæ* is here adopted as defined by Richard, with the genera *Pinus*, *Abies*, *Picea*, *Larix*, and *Cedrus*: and here that confusion of *Abies* and *Picea* which so distresses British foresters and planters had its origin. At p. 2105 there

is a clavis of the genera, where the genus *Abies* is attributed to Link, but the characters given to it are those of Link's *Picea*; and in like manner *Picea* is attributed to Link, though the characters given are those of Link's *Abies*, and they are followed by *D. Don* in brackets. Turning now to the full account of the genera, at p. 2293, we find "*Abies*, *D. Don* in *Lamb. Pin.* vol. iii." with the addition of "*Picea*, *Link*" as a synonym, followed by descriptions of the Spruces. And at p. 2329 we have "*Picea*, *D. Don* in *Lamb. Pin.* vol. iii," with *Abies*, *Link*, as a synonym; followed by descriptions of the Silver Firs. Now not only was the edition of Lambert's work subsequent to Link's establishment of *Picea* for Spruces and *Abies* for Silver Firs, but Don nowhere in Lambert's *Genus Pinus* proposed these names as generic. Disregarding this blundering, which probably originated in the elaboration of the conifers being a composite work of Don and Loudon working apart, there remains but one argument for preferring Don's nomenclature, which is, that Linnæus called the Silver Fir *Pinus Picea* and the Spruce *P. Abies*, assuming that he was following the practice of the ancients, in which he is known to have been mistaken.

Owing to the great merit and utility of Loudon's *Arboretum*, his nomenclature has hitherto been universally adopted in the United Kingdom. It contains descriptions of about 70 species of *Abietineæ*.

In 1841 Link (in *Linnæa*, vol. xv., p. 481) reviewed the whole Tribe of *Abietineæ*, retaining, as before, *Pinus*, *Picea*, *Abies*, *Larix*, and *Cedrus*, and enumerating 52 species

In 1841-46, Antoine's *Die Coniferen* appeared, in which all the *Abietineæ* are referred to *Pinus*, with sections of *Pinus* proper, *Larix*, *Cedrus*, *Picea*, Don, *Abies*, Don, and *Tsuga*; he describes 90 species.

In 1842 Spach, in his *Histoire Naturelle des Végétaux*, adopted *Pinus*, *Abies* (including under it as sections *Picea*, Link, *Tsuga*, and *Pseudotsuga*), *Cedrus*, and *Larix*.

Endlicher, in the same year, in his *Genera Plantarum* reverted to Linnæus' practice of including all under *Pinus*, but made four sections—*Pinus* proper, *Picea*, Link, *Abies*, Link, and *Larix*, including *Cedrus*.

In the same author's *Synopsis Coniferarum*, published two years later, he maintains the genus *Pinus* entire, as before, but subdivides it into 11 sections, with 109 species.

In 1850 Lindley and Gordon published (in the *Journal of the Horticultural Society*, vol. v.) "An Enumeration of *Coniferae* cultivated in Great Britain," where two genera only are adopted, *Pinus* and *Abies*, and the latter is subdivided into Firs (including Spruces), Larches, and Cedars, with 119 species.

Meisner in 1836-43 published his *Genera Plantarum Vascularum*, wherein he includes all *Abietineæ* under *Pinus*, with, as sections, *Pinus* proper, *Picea*, Link, *Abies*, Link, and *Larix*, including *Cedrus*.

In 1855 Carrière's *Traité général des Conifères* appeared; he keeps up *Pinus*, *Abies*, Link, *Picea*, Link, *Larix*, *Cedrus*, and *Tsuga*, which includes *Pseudotsuga*. This work enumerates 133 species, many of which are now ranked as varieties.

In 1858 appeared the first edition of Gordon's *Pinetum*, in which he maintains *Pinus*, *Abies*, Don (including *Tsuga* and *Pseudotsuga*), *Picea*, Don, *Larix*, *Cedrus*, and *Pseudolarix*. He enumerates 131 species, of which many are imperfectly known.

In 1865 Henkel and Hochstetter published their *Die Coniferen*, with the following arrangement, *Pinus*, *Abies* (including *Picea*, Link, *Abies*, Link, *Tsuga*, and *Pseudotsuga*), *Cedrus*, *Larix*, and the new genus *Pseudolarix*, Gord. They describe 130 species, which should be reduced much as Carrière's should be.

In 1867 the second edition of Carrière's *Traité* was published, in which all the genera of the first edition are retained together with *Pseudotsuga* and *Keteleeria*, and 153 species are described, excluding many dubious ones.

In 1868 Parlatore's monograph of the order appeared in the 16th volume of De Candolle's *Prodromus*. The genus *Pinus* is divided into two sub-genera *Pinus* proper for the Pines, and *Sapinus*; which latter includes as sections only *Picea*, Link, *Abies*, Link, *Cedrus*, *Larix*, *Pseudolarix*, *Tsuga*, and *Pseudotsuga*. The species described are 162.

In 1875 the second edition of Gordon's *Pinetum* was published, in which the same genera are retained as in the 1858 edition, with 150 species.

Lastly, in the *Genera Plantarum* (1882), Mr. Bentham and I have distinguished *Pinus*, *Picea*, Link, *Abies*, Link, *Tsuga*, *Pseudotsuga*, *Larix*, and *Cedrus*, to which must now be added *Pseudolarix* and probably *Keteleeria*, both at that time very imperfectly known.

In 1886 Dr. M. T. Masters published (*Journal of the Linnean Society*, xxii pp. 169-212, tt. 2-10, with 32 woodcut figures in the text) some "Contributions to the History of certain Conifers." This was followed in 1890 by a "Review of some points in the comparative Morphology, Anatomy, and Life History of the Coniferæ" (*Journ. Linn. Soc.*, xxvii., pp. 226-332, with 29 woodcut figures in the text), and in 1895 by "Notes on the Genera of *Taxaceæ* and *Coniferæ*" (*Journ. Linn. Soc.*, xxx., pp. 1-42).

In 1889, two years after his death, Dr. A. W. Eichler's elaboration of the Coniferæ appeared in Engler and Prantl's *Die Natürlichen Pflanzenfamilien*. He classifies the genera under two primary divisions: *Pinoideæ* and *Taxoideæ*. The former he again divides into *Abietineæ* and *Cupressineæ*, with several ternary divisions, and the latter into *Podocarpeæ* and *Taxææ*. The genera are limited, with few exceptions, as they are by Bentham and Hooker; but he retains *Chamæcyparis*, *Thuiopsis* and *Pseudolarix*, and sinks *Pseudotsuga* in *Tsuga* and *Prumnopitys* in *Podocarpus*.

In 1891 L. Beissner published a *Handbuch der Nadelholzkunde*. This was preceded by a *Handbuch der Coniferen-Benennung* (1887), followed by two supplements (1891-2) on *Einheitliche Coniferen-Benennung*. Beissner deals critically with the numerous natural and garden varieties and hybrids. He has also paid much attention to nomenclature, though he accepts familiar names rather than revive obscure ones on the rule of priority.

In 1892 the Royal Horticultural Society held a "Conifer Conference," and the papers read thereat form

the fourteenth volume of the *Journal* of the Society. This is one of the most interesting volumes issued by the Society, containing a great variety of valuable information concerning *Coniferae*, including a general introduction and a list of the species cultivated in Great Britain and Ireland, by Dr. M. T. Masters, F.R.S.

In 1894 H. Baillon (*Histoire des Plantes*, xii. pp. 1-45) published an account of the order, with a synopsis of the genera, which he reduced to twenty-four, including *Casuarina*. He divides the order into eight "series," namely: *Taxées*, *Cupressées*, *Junipérées*, *Athrotaxées*, *Nagéiées*, *Araucariées*, *Pinées*, and *Casuarinées*. The inclusion of the last is inexplicable, and some changes in nomenclature will not meet with general approval. *Belis*, Salisb. is revived for *Cunninghamia*, R. Br.; *Podocarpus*, Labill. for *Phyllocladus*, Rich.; *Agathis*, Salisb. for *Dammara*, Lamk., and *Nageia*, Gærtn. for *Podocarpus*, L'Herit."

Sir Joseph Hooker has been for some years so incessantly occupied with the completion of his "*Flora of British India*" that the detailed study of the Kew Pinetum which, as will be seen, he had proposed to himself, is entirely beyond his powers. Kew has, however, had the advantage, in drawing up the present Hand-list, of the assistance of Dr. Masters, F.R.S., who is now the acknowledged authority on the nomenclature of Conifers in this country. As a general rule at Kew, the *Genera Plantarum* is accepted as the standard of nomenclature. In the present case some deviations have been adopted, which have received the concurrence of

Sir Joseph Hooker. Of these Dr. Masters has been so good as to furnish the following brief explanation :—

“The arrangement of the genera in the following list differs in a few particulars from that adopted in Bentham and Hooker’s *Genera Plantarum*. The principal difference consists in the maintenance of the *Taxaceæ* as a distinct order as originally proposed by Richard and followed by Endlicher, Lindley, and many other botanists. This arrangement permits of a more natural arrangement of the several taxaceous genera under two tribes, the *Salisburineæ* comprising *Ginkgo*, *Cephalotaxus*, and *Torreya*, and the *Taxineæ* including the two sub-tribes *Taxeæ* and *Podocarpeæ*. *Prumnopitys*, Philippi (with which *Stachycarpus*, Van Tieghem, is synonymous) is placed by Bentham and Hooker under *Podocarpus*, but the combination of morphological and histological characters point to the desirability of maintaining it as a separate genus.

Among the *Conifereæ* or *Pinaceæ* proper a few changes have been made from the grouping of Bentham and Hooker in accordance with the fuller knowledge of certain points of structure that is now available. *Tetraclinis* is proposed as a distinct genus, represented by the North African *Callitris quadrivalvis*, on the ground of its structure and geographical distribution. *Widdringtonia* is separated from *Callitris* for similar reasons.

The sub-divisions of *Cupressus* and of *Thuja* have been bandied about between the two genera. The genus *Cupressus*, as here understood, includes the *Cypresses*

proper and the so-called flat Cypresses (*Chamaecyparis*), which Bentham and Hooker place under *Thuja*, and which others prefer to consider as a separate genus. *Retinispora*, it is now well known, has no claim to a separate generic position. The North-Western American *Thuopsis*, placed under *Thuja* by Bentham and Hooker, is more like a *Cupressus*, whilst the Japanese plant known under the same generic name is a true *Thuja*. Probably the fusion of *Cupressus* and *Thuja* into one genus would be the most natural arrangement, but in practice the inconvenience of such a grouping and the consequent confusion of the nomenclature would be almost intolerable.

Pseudolarix of Gordon is shown by the male flowers to constitute a distinct genus, as was indeed suspected by Bentham.

Keteleeria of Carrière, referred by Bentham to *Abies*, is also shown by the fuller knowledge we now have of its structure to constitute a distinct genus."

The collections of *Coniferæ* at Kew have occupied three different positions at successive times. According to John Smith's privately printed *Records of Kew* (p. 258), the original Arboretum consisted of about five acres. It lay between the Temple of the Sun and the present Main Entrance. It was laid out by W. Aiton on the Linnean system. "*Pinus* occupied the north and part of the east."

In the first edition of the *Hortus Kewensis* (1789) Aiton enumerates 36 species of *Coniferæ* as cultivated at Kew; in the second edition (1813) 56 species are

recorded, "which formed the collection in the original Arboretum." Some of these still remain. According to Smith (p. 286), "within a few yards of the entrance gates on Kew Green stands a specimen of *P. Laricio* (the Corsican Pine). In 1825 the late R. A. Salisbury informed me that he brought it from the south of France, in the year 1814; it is now (1880) 85 feet high, and the most conspicuous tree in the Gardens."

Ginkgo biloba (*Salisburia adiantifolia*), first introduced in 1754, was, according to Smith (p. 267), "originally trained against a wall like a fruit tree; upon the wall being taken down, and the branches cut away, it is now (1880) a fine tree. When against the wall one of its side branches early produced male flowers." It again did so in 1895, and probably in previous years.

Cedrus Deodara was, according to Smith (p. 287), introduced "by the Hon. Leslie Melville, in the year 1831, who, on visiting the Gardens, gave me a few seeds which he had loose in his pocket, one of which vegetated, and after several years nursing was planted in the old Arboretum. . . . In 1864 it had attained a height of 32 feet." The tree became diseased and was taken down in 1888. Near its former position is one, now nearly as large, raised from seed ripened in England by Sir T. D. Acland, Bart.

In 1843, by permission of the Queen, about 45 acres were added to the original Botanic Garden for the formation of a Pinetum. This included the ground formerly bounded by a wire fence on which the Palm House now stands, and to the north, west, and south of it. Smith (*Records*, p. 291) says:—"The area was planted with conifers . . . without any special

arrangement." Many of these still remain and have attained a considerable size; one of the most conspicuous is the fine specimen of *Pinus monticola*, now 56 feet high.

Kew owes its existing Pinetum to Sir Joseph Hooker, who has always taken a peculiar interest in this ancient and striking group of plants. A visit to Syria in 1860 enabled him to study the Cedar of Lebanon in its native locality.

Perhaps one of the most interesting achievements of the late Turkish Ambassador, Rustem Pacha, was his successful efforts, while Governor of Northern Syria, to preserve what was left of the ancient grove.

In 1877 Sir Joseph Hooker's interest in Conifers was one of the main influences which induced him to undertake an extensive journey in Western North America. He brought back a rich harvest of specimens which were deposited in the Kew Museum.

The Kew Pinetum has been carefully developed on the lines which Sir Joseph Hooker laid down. These are sufficiently indicated in the following extract from his Report for 1872 (pp. 4-5).

"*Pinetum*.—This, which is by far the most important and extensive collection in the grounds, is now all but completed. In my Report for 1871 I stated that the genera *Abies*, *Picea*, and a few others had been planted along the new walk on the south side of the Lake. These extend for 160 yards on both sides of the path, and are now succeeded by the collection of *Pinus* proper, which extends from the termination of *Abies* to

the Isleworth entrance (340 yards), and thence along the lined-out path (100 yards) that leads to the Sion vista. The collection of *Pinus* proper also extends 100 yards up the new path skirting the Queen's Cottage grounds, where it is succeeded by the collection of Yews, Cypressés, Retinisporas, Taxodiums, Thujas, and smaller American and Japanese genera.

"The Juniper collection is planted on either side of an avenue leading through the woods from the Lake to King William's Temple, and extends for 200 yards.

"The classified and named Pinetum thus extends along nearly 2,000 yards of path and avenue, representing double that length, or two and a quarter miles of made soil, beds, and plantations, except where interrupted by old trees.

"The plants are throughout so arranged that the Old World species are as far as possible placed opposite to the American species of the same genera, and there are on the average 3-12 specimens of each species or conspicuous variety, placed in groups. The number of specimens is about 1,200, all I believe correctly named, with the exception of some doubtful ones. Almost every species that can be grown in the open air in this country is represented. Very few have been bought, the majority being plants procured by exchange and correspondence with different parts of the world, and through the liberality of various eminent nurserymen.

"Whenever possible, the specimens in the old Pinetum have been transplanted to this, in most cases with apparent success, but of this there is no assurance till the spring is over. The specimen Pines in the Botanic Garden have not been removed.'

It is only necessary to add that at the end of a quarter of a century the original plan has met with as much success as could be expected, looking at the great variety of species which it is attempted to grow under almost uniform conditions. A barren and arid soil has been congenial to some groups and fatal to others. Pines have on the whole prospered, while Spruces and Silver Firs have languished. In the latter case the maintenance of a collection illustrating Conifers as a whole can only be effected by constantly renewing it with young plants. As soon as these reach any size, they appear, under the conditions to which they are exposed at Kew, inevitably to die. It may be interesting to mention a few of the species which flourish on the Kew soil.

Ginkgo biloba (Maidenhair Tree) has already been referred to. This remarkable tree, a last representative of one of the most ancient types of plants, is apparently nowhere known in the wild state. In Japan it is only found in the precincts of temples, where it has been almost certainly planted. Being deciduous it tolerates the neighbourhood of towns, and it is remarkable that it has not been more frequently planted in our parks. But its growth is slow.

Sciadopitys verticillata (Umbrella Pine) is represented by a vigorous specimen.

Taxodium distichum (Deciduous Cypress) bids fair to form a conspicuous feature on the islands in the Lake.

Cedrus atlantica (Atlas Cedar) grows with great rapidity at Kew. The *Deodar* (*Cedrus Deodara*), on the other hand, has greatly disappointed the expectations formed of it. The most shapely and graceful specimen

which Kew possessed, 45 feet in height, stood on the west side of the Pagoda Vista, between the Palm House and King William's Temple. It was unfortunately destroyed by lightning on August 10th, 1895. (*Kew Bulletin*, 1895, p. 235.)

Larix europæa (Larch) grows well at Kew. Scattered through the woods are many fine specimens, the wood of which is of excellent quality.

Abies brachyphylla, from Japan, grows with great rapidity, and promises to be one of the most successful additions to the Pinetum from that country.

Pinus Coulteri is represented by a very fine specimen near the Cactus House (No. V.).

Pinus Laricio (Corsican Pine) has already been referred to.

Pinus excelsa (Bhotan Pine) is represented by numerous vigorous specimens.

Pinus monticola has already been referred to.

Of the specimen trees in the Botanic Garden some have been already mentioned.

Perhaps one of the most notable was the first specimen of the Chili Pine (*Araucaria imbricata*), the history of which is given in the *Kew Bulletin* for 1893 (pp. 24, 25). It died, and was removed in the autumn of the preceding year.

Several of the tender Conifers grown in the Temperate House are fine specimens of some age.

Agathis australis (Kauri Pine) was introduced to Kew in 1838 by "Sir William Symonds, then Surveyor-General of the Navy" (Smith, *Records*, p. 289).

Agathis robusta, according to Smith (*Records*, p. 290), was introduced to Kew in 1852, and grew freely in the

Palm House. It was subsequently removed into the Temperate House, the conditions of which seem to suit it even better.

Araucaria Bidwillii (Bunya Bunya) was brought to this country in 1846 by Mr. T. Bidwill, who "was superintendent *pro tem.* of the Sydney Botanic Gardens" (Smith, *Records*, p. 67).

Araucaria Cunninghamii (Moreton Bay Pine) was discovered by Allan Cunningham in Queensland (probably about 1826), who forwarded plants to Kew, of which the existing specimen is the survivor. Some years ago it was much disfigured by a gust of wind which carried off about 25 feet of the top. The stump was trimmed, and a new leader was speedily produced, which eventually restored the symmetry.

Araucaria excelsa (Norfolk Island Pine), a native of Norfolk Island, according to Smith (*Records*, p. 66), introduced to Kew from New South Wales in 1793, by Governor Phillips (first Governor of New South Wales). The necessity for providing adequate accommodation for this and other striking plants led to the erection of the Temperate House, to which they were transferred in 1863. The habit of the specimen at Kew, which is now more than a century old, is a good deal altered (and perhaps improved) by the pruning necessary to keep it within bounds, even in its present position.

TAXACEÆ.

Tribe I.—Salisburineæ.

Ginkgo biloba, *L.* China. "The Maidenhair tree." *Veitch*,
Manual, 313, f. 63.

Salisburia adiantifolia, *Salisb.*

Var. *fastigiata*.

Var. *macrophylla laciniata*.

Var. *triloba*.

Var. *variegata*.

Var. *pendula*.

Cephalotaxus drupacea, *Sieb. & Zucc.* Japan.

C. Fortuni, *Hook.* Bot. Mag. t. 4499; *Beissner*, Handbuch,
182, f. 45. Northern China.

Var. *brevifolia*, *Hort.*?

Var. *longifolia*, *Hort.*?

**C. Mannii*, *Hook. f.* Icones Plantarum, t. 1933. China, Upper
Assam, &c.

C. pedunculata, *Sieb. & Zucc.*; *Beissner*, Handbuch, 179,
f. 44.

Taxus Harringtonia, *Knight & Perry*.

Var. *fastigiata*.

Podocarpus koraianus, *Hort.*

Taxus japonica, *Hort.*

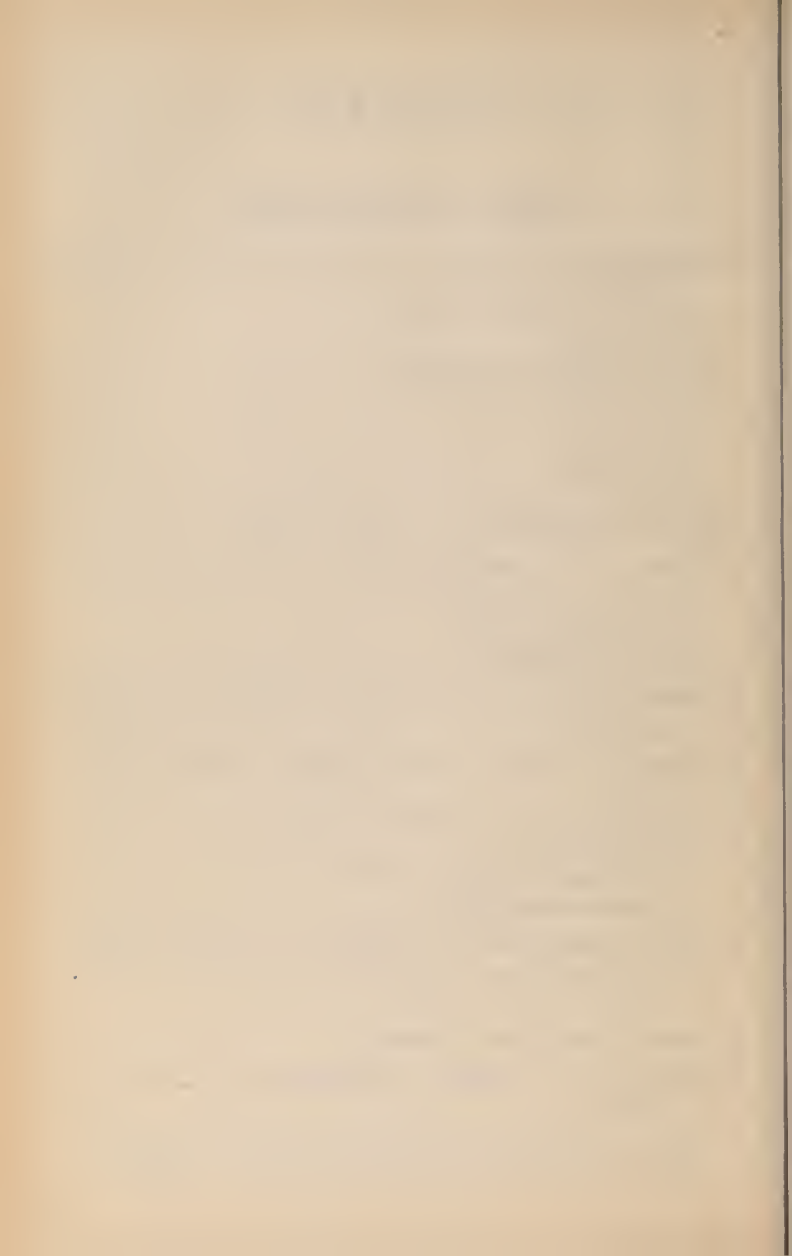
Torreya californica, *Torr.* California.

T. Myristica, *Hook.* Bot. Mag. t. 4780; Gard. Chron.
1884, xxii., 681, f. 116.

T. nucifera, *Sieb. & Zucc.* Japan.

T. taxifolia, *Arn.*; *Beissner*, Handbuch, 187, f. 46. W.
Florida.

* Those species marked with an asterisk are grown under glass.



Tribe II.—Taxineæ.

Sub-tribe I.—TAXEÆ.

**Phyllocladus rhomboidalis*, *Rich.* Tasmania.

YEWS.

Taxus baccata, *L.*; *Beissner*, Handbuch, 168, f. 43. Europe and Northern Asia.

Var. *adpressa*, *Gord.*

Var. *adpressa stricta*.

Var. *adpressa variegata*.

Var. *albo-variegata*, *Spaeth*.

Var. *argentea*.

Var. *aurea*.

Var. *aureo-variegata*.

Var. *Barroni*.

Var. *brevifolia*.

Var. *cheshuntensis*, *Gord.*

Var. *Dovastoni*, *Carr.*

Var. *Dovastoni aureo-variegata*.

Var. *elegantissima*.

Var. *epacridioides*.

Var. *erecta*, *Loud.*

Var. *erecta Crowderi*.

Var. *ericoides*.

Var. *expansa*, *Carr.*

Var. *fastigiata*, *Loud.* "The Irish Yew."

Var. *fastigiata argentea*.

Var. *fastigiata aurea*, *Standish*.

Var. *fastigiata Standishii*.

Var. *Fisheri*.

Var. *fructu luteo*.

Var. *glauca*, *Carr.*

Var. *gracilis pendula*.



Taxus baccata—cont.

Var. *horizontalis*, *Knight*.

Var. *horizontalis elegantissima*.

Var. *nana*, *Knight & Perry*.

Var. *pendula*.

Var. *procumbens*, *Lodd*.

Var. *pyramidalis*.

Var. *pyramidalis variegata*.

Var. *recurvata*, *Lawson*.

Var. *Sieboldi*.

Var. *sinensis*, *Knight*.

Var. *Washingtoni*.

T. canadensis, *Willd.* Canada and N. Eastern United States.

Var. *aurea*.

T. cuspidata, *Sieb. & Zucc.* Mountains of Japan.

***Dacrydium araucaroides**, *Brongn. & Gris.* New Caledonia.

***D. cupressinum**, *Soland.*; *Kirk*, Forest Flora of New Zealand, tt. 18, 19. New Zealand.

***D. elatum**, *Wall.* Malaya.

***D. Franklini**, *Hook. f.* Flora Tasmaniae, t. 100. Tasmania.

Sub-tribe II.—PODOCARPEÆ.

Podocarpus alpina, *R. Br.* Tasmania.

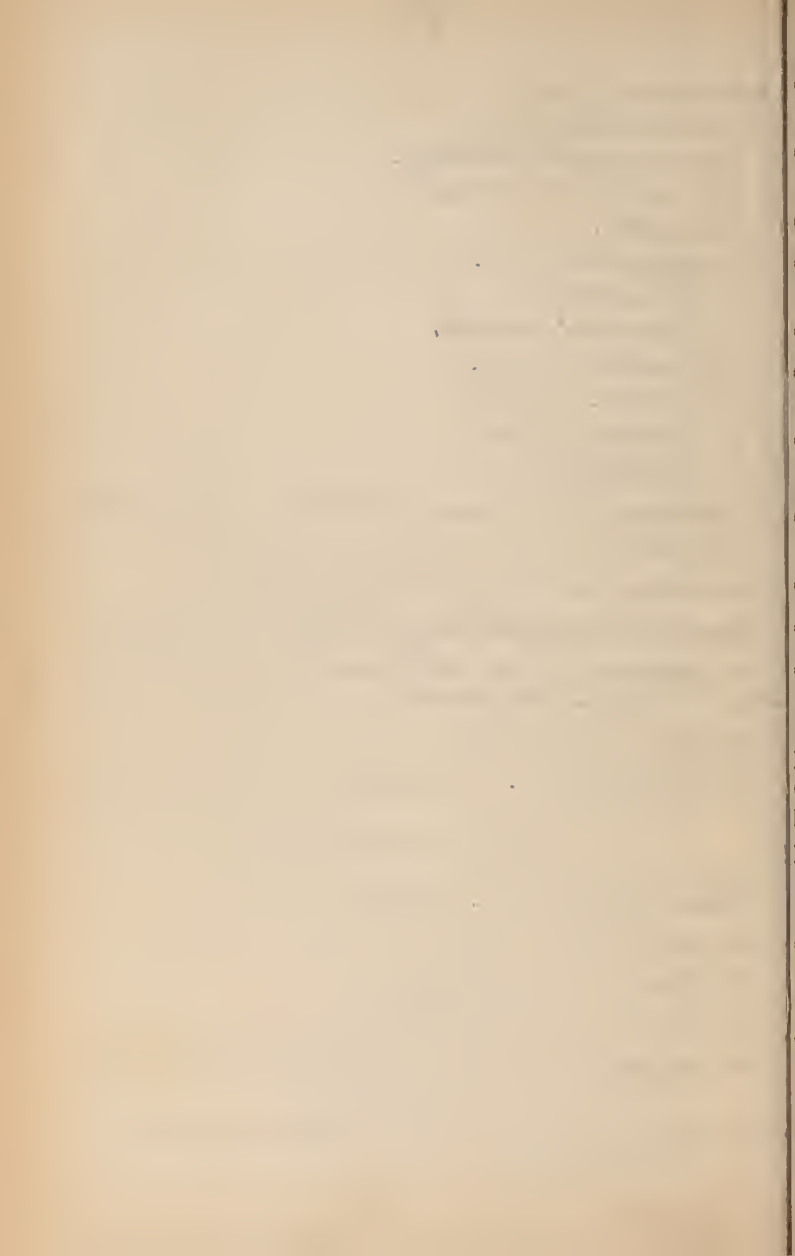
***P. amara**, *Blume.* Java.

***P. chilina**, *Rich.* Andes of Chile.

***P. cupressina**, *R. Br.* Burma, Malaya.

***P. dacrydioides**, *A. Rich.*; *Kirk*, Forest Flora of New Zealand, t.t. 31, 32. New Zealand.

***P. elongata**, *L'Herit.*; *Engl.* Pflanzenw. Ost-Afr., t. i. E. Africa, &c.



- **P. ferruginea*, *D. Don* ; *Kirk*, Forest Flora of New Zealand, t. 84. New Zealand.
- **P. argotaenia*, *Hance*. China.
P. insignis, *Hemsl.*
- **P. japonica*, *Sieb.* Japan.
- **P. macrophylla*, *D. Don* ; *Sieb. & Zucc.*, Fl. Jap., t.t. 133, 134. Japan.
- **P. neriifolia*, *D. Don* ; Bot. Mag. t. 4645. Himalaya.
- **P. nubigena*, *Lindl.* in *Paxt.* Flower Garden, 1851, 162. f. 128 ; Gard. Chron., 1891, x., 171, f. 23. Chile.
- **P. Nageia*, *R. Br.* ; *Sieb. & Zucc.* Fl. Jap. t. 135. Japan.
 Var. *rotundifolia*.
- **P. pectinata*, *Panch.* (ex *Brongn. & Gris.*) New Caledonia.
Dacrydium Pancheri, *Brongn. & Gris.*
- **P. purdieana*, *Hook.* Icones Plantarum, t. 624. Jamaica.
- **P. salicifolia*, *Klotzsch & Karst.* Colombia.
- **P. Totara*, *G. Benn.* ; *Kirk*, Forest Flora of New Zealand, t. 115. New Zealand.

Some of the above-mentioned species may really belong to *Prumnopitys*, but until they flower and can be critically examined and determined it seems better to include them provisionally under *Podocarpus*.

Prumnopitys elegans, *Philippi*. Chile.

Pedocarpus andina, *Poepp.*

Stachycarpus andina, *Van Tieghem*.

**P. spicata*, *Mast.* New Zealand.

Podocarpus spicata, *R. Br.* ; *Kirk*, Forest Flora of New Zealand, t.t. 4, 5.

**P. taxifolia*, *Mast.* Andes.

Podocarpus taxifolia, *H. B. K.* Nov. Gen. et Sp. Plant. ii. t. 97.

**Saxegothea conspicua*, *Lindl.* ; Gard. Chron., 1889, v., 782, f. 125. Southern Chile.

**Microcachrys tetragona*, *Hook. f.* ; Bot. Mag. t. 5596. Tasmania.

CONIFERÆ.

Tribe I.—Cupressineæ.

Sub-tribe I.—JUNIPERINÆ. “Junipers.”

†SABINA.

**Juniperus bermudiana*, *L.*; *Hemsl.* Gard. Chron., 1883, xix. 657, f.f. 105-6; *Sargent*, Garden and Forest, 1891, 289, f.f. 51-2. Bermuda.

J. californica, *Carr.*; Rev. Hort. 1854, 353, f. 21. Utah, Arizona, California.

J. chinensis, *L.*; *Beissner*, Handbuch, 119, f. 29. Himalaya, China, Japan.

J. Cebiancae, *Vis.*

J. canadensis aurea, *Hort.*

J. densata, *Gord.*

J. flagelliformis, *Hort.*

J. jakobiana, *Hort.* *Jakob-Makoy.*

J. japonica, *Carr.*

J. reevesiana, *Hort.*

J. squamata, *Hort. Edinb.*

J. struthiacea, *Knight & Perry.*

J. Thunbergii, *Hook. & Arn.*

Var. *albo-variegata*.

Var. *aurea*.

J. japonica, *Carr.* var. *aurea*, *Hort.*

Var. *glauca*.

Var. *Smithii*.

Var. *variegata*.

J. excelsa, *Bieb.* Asia Minor, Taurus.

Var. *venusta*.

Var. *stricta*.

Var. *Perkinsii*.



J. flaccida, *Schlecht.* Mountains of Mexico.

J. macropoda, *Boiss.* Himalaya.

J. excelsa, *Brandis* (not *Bieb.*).

J. gossainthaneana, *Lodd.*

J. mexicana, *Schiede.* Mountains of Mexico.

J. occidentalis, *Hook.* North Western America.

J. dealbata, *Hort. alig.* (not *Loud.*).

J. pyriformis, *Lindl.*

Chamaecyparis Boursieri, *Decne.* (not *Carr.*).

Var. *Burkei*.

Var. *fragrans*.

J. pachyphlaea, *Torr.* New Mexico, Arizona.

J. phoenicea, *L.* Mediterranean region.

J. bacciformis, *Carr.*

J. Lycia, *L.* (not *Pall.*).

J. tetragona, *Moench.*

Var. *turbinata*.

J. dealbata, *Hort. alig.*

J. oophora, *Kunze.*

J. procera, *Hochst.* Abyssinia.

J. pseudo-Sabina, *Fisch. & Mey.* Siberia, Himalaya, Tibet.

J. recurva, *Buch.-Ham.*; *Gard. Chron.*, 1883, xix., 468, f. 69.
Nepal, Cashmir.

Var. *pendula*.

Var. *squamata*, *Parl.*

J. densa, *Gord.*

J. excelsa, *Bieb.* var. *nana*, *Endl.*

J. religiosa, *Royle.*

J. squamata, *Buch.-Ham.*

J. Sabina, *L.*; *Beissner*, *Handbuch*, 108, f. 27. Mountains
of Europe and N. America.

J. excelsa, *Willd.* (not *Bieb.*).

J. Lycia, *Pall.* (not *L.*).

J. Sabina--*cont.*

Var. *humilis*, *Endl.*

Var. *procumbens*, *Pursh.* N. America. "Waukegan Juniper."

Var. *prostrata*, *Loud.*

J. hudsonica, *Lodd.*

J. prostrata, *Pers.*

J. repens, *Nutt.*

Var. *tamariscifolia*, *Ait.*

Var. *variegata*.

J. sphaerica, *Lindl.* in *Paxt. Flow. Gard.*, 1850, 58, f. 35.
North China.

J. chinensis var. *Smithii*, *Loud.*

J. Fortunei, *Van Houtte.*

Var. *glauca*, *Gord.*

J. Shephardi, *Hort.*

J. Sheppardi, *Hort.*

J. tetragona, *Schlecht.* Mountains of Mexico.

J. thurifera, *L.*; *Veitch*, *Manual*, 271, f. 60. Spain, Portugal,
Algiers.

J. bonatiana, *Vis.*

J. cinerea, *Carr.*

J. foetida var. *thurifera*, *Spach.*

J. hispanica, *Lam.*

J. sabinoides, *Endl.*

J. virginiana, *L.* North-East America to Florida and Jamaica
and in Vancouver. "Red Cedar."

Var. *argentea*.

Var. *compacta*.

Var. *glauca*, *Carr.*

Var. *humilis*.

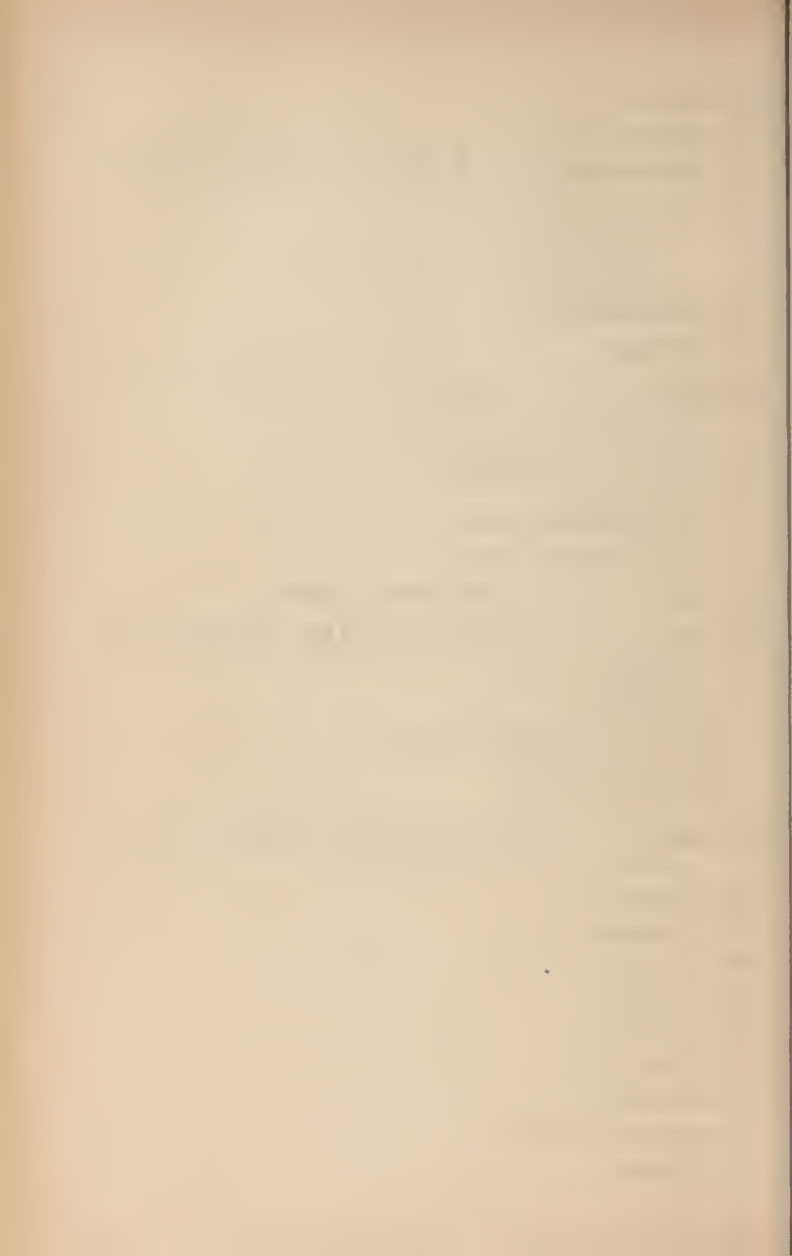
Var. *horizontalis*.

Var. *kosteriana*.

Var. *pendula*, *Carr.*

Var. *pyramidalis glauca*.

Var. *Schotti*



J. virginiana—*cont.*

Var. *tripartita*.

Var. *viridis*.

Var. *viridis pendula*.

†† OXYCEDRUS.

**J. Cedrus*, *Webb*. Mountains of the Canaries.

J. communis, *L.*; *Beissner*, *Handbuch*, 134, f. 31. Europe, Siberia. "Juniper."

Var. *alpina*.

J. alpina, *S. F. Gray*.

J. canadensis, *Lodd*.

J. nana, *Willd*.

Var. *fastigiata*.

J. hibernica, *Gord*.

J. hispanica, *Booth. ex Endl*.

J. succica, *Mill*.

Var. *glauca*.

Var. *hemisphaerica*.

J. hemisphaerica, *Presl*.

J. nana var. *hemisphaerica*, *Carr*.

Var. *oblonga*.

J. oblonga, *Bieb*.

Var. *reflexa*.

J. communis var. *caucasica*.

J. oblonga, *Gord*.

J. henryana, *R. Br. Campst. Gard. Chron.*, 1873, 8. North-Western America.

J. litoralis, *Maxim*. Japan.

J. conferta, *Parl*.

J. macrocarpa, *Sibth*. Mediterranean Region.

J. Oxycedrus, *L. Herb. nec Sp. Pl*.

J. neaboriensis, *Hort*.

J. sphaerocarpa, *Antoine*.

J. umbilicata, *Gren. & Godr*.

J. Willkommii, *Antoine*.



- J. Oxycedrus**, *L.*; *Rich.*, Conif. 39, t. 6. South Europe, &c.
J. biebersteiniana, *C. Koch.*
J. rufescens, *Link.*
J. tenella, *Antoine.*

J. rigida, *Sieb. & Zucc.* Flor. Jap. ii., 109, t. 125. Mountains of Japan.

- J. taxifolia**, *Hook. & Arn.* China & Japan.
J. oblonga pendula.

†††ARCEUTHOS.

- J. drupacea**, *Labill.*; Gard. Chron., 1854, 455, f. Mountains of the Levant.
J. rufescens, *Hort. Edinb.*
Arceuthos drupacea, *Antoine.*

Sub-tribe II.—CALLITRINÆ.

- ***Tetraclinis articulata**, *Mast.* Algiers, Marocco.
Callitris quadrivalvis, *Rich.*; *Loudon*, Encycl., 1072, f. 1995.
Frenela Fontanesii, *Mirbel.*
Thuya articulata, *Vahl.*
- ***Callitris calcarata**, *R. Br.* Australia.
Frenela Endlicheri, *Parl.*
- ***C. cupressoides**, *Schrad.* S. Africa.
- ***C. Parlatoresi**, *F. Muell.* Australia.
Frenela Parlatoresi, *F. Muell.*
- ***C. robusta**, *R. Br.* Australia.
Frenela robusta, *A. Cunn.*
 Var. *verrucosa*, *Benth. & F. Muell.*
C. verrucosa, *R. Br.*
- ***Actinostrobus pyramidalis**, *Miq.*; *Hook.* Icones Plantarum, t. 1272. West Australia.
- ***Widdringtonia Whytei**, *Rendle.* Mountains of Central Africa. "The Milanji Cypress."



Sub-tribe III.—THUYNÆ.

- **Fitzroya Archeri*, *Benth. & Hook. f.* Tasmania.
Diselma Archeri, *Hook. f.* *Flora Tasmaniae*, t. 96.
- **F. patagonica*, *Hook. f.* *Bot. Mag.* t. 4616. Mountains of
 Western Patagonia, Chile, Valdivia.
Widdringtonia glauca, *Hort.*

†*EU*CUPRESSUS.—“*Cypresses.*”

- **Cupressus Benthami*, *Endl.* Mountains of Mexico and
 Guatemala.
C. aromatica, *Gord.*
C. Coulteri, *Forbes.*
C. Ehrenbergii, *Kunze.*
C. elegans, *Hort.*
C. excelsa, *Scott.*
C. Hugcli, *Hort.*
C. karwinskyana, *Regel.*
C. lusitanica, *Carr.* (not *Mill.*).
C. Skinneri, *Hort.*
C. thurifera, *Schlecht.*
C. uhdeana, *Hort.* (in part).
- Var. *arizonica*.
Cupressus arizonica, *Greene.*
- **C. funebris*, *Endl.*; *Gard. Chron.*, 1850, 439, f. 31. China.
C. amoena, *C. Koch.*
C. pendula, *Abel* (not *Thunb.*).
- *Var. *glauca*.
C. kashmiriana, *Hort.*
- C. goweniana*, *Gord.*; *Journ. Hort. Soc. London*, 1849, iv.,
 295, f. California.
C. californica, *Carr.*
- **C. lusitanica*, *Mill.* Locality unknown. “The Cedar of Goa.”
C. glauca, *Lam.*
C. pendula, *L’Herit.*
C. uhdeana, *Gord.* (in part).



C. macnabiana, *A. Murr.* Mountains of California.
C. glandulosa, *Hook.*

C. macrocarpa, *Hartw.* California, near the coast.
C. Hartwegii, *Carr.*
C. lambertiana, *Gord.*

Var. *fastigiata*.

Var. *guadeloupensis*.

Cupressus guadeloupensis, *S. Wats.*

Var. *Crippsii*.

C. sempervirens, *L.* ; *Beissner*, Handbuch, 101, f. 26. Levant.

C. horizontalis, *Mill.*

C. patula, *Spad.*

C. sempervirens var. *horizontalis*, *Gord.*

C. Tournefortii, *Audib.*

Var. *fastigiata*.

C. conoidea, *Spad.*

C. fastigiata, *DC.*

C. pyramidalis, *Targ. Tozz.*

Var. *indica*, *Royle.*

C. australis, *Low.*

C. doniana, *Hort.*

C. Roylei, *Carr.*

C. whitleyana, *Hort.*

Var. *flagelliformis*.

Var. *retrofracta*.

Var. *thuaiaefolia*.

C. torulosa, *D. Don.* W. Himalaya.

C. Tournefortii, *Tenore* (not *Audib.*).

*Var. *corneyana*.

C. corneyana, *Gord.* Locality unknown.

Var. *majestica*.

††CHAMAECYPARIS.

C. lawsoniana, *A. Murr.* North California, Oregon. "The Lawson Cypress."

Chamaecyparis Boursieri, *Carr.*

C. lawsoniana, *Parl.* ; Beissner, Handbueh, p. 72, f. 17.

The varieties, which are very numerous, admit of a rough classification according to their most conspicuous characters. Many of them lose their peculiar form as they increase in age; they also vary in their degree of hardness.

Variations in Colour of Foliage.

Var. albo-maculata.

Var. albo-picta.

Var. albo-spica.

Var. albo-variegata.

Var. argentea.

Var. argenteo-variegata.

Var. aurea.

Var. aureo-variegata.

Var. glauca.

Var. glauca pendula.

Var. lutea.

Var. ochroleuca.

Var. Silver Queen.

Variations in Form and Habit.

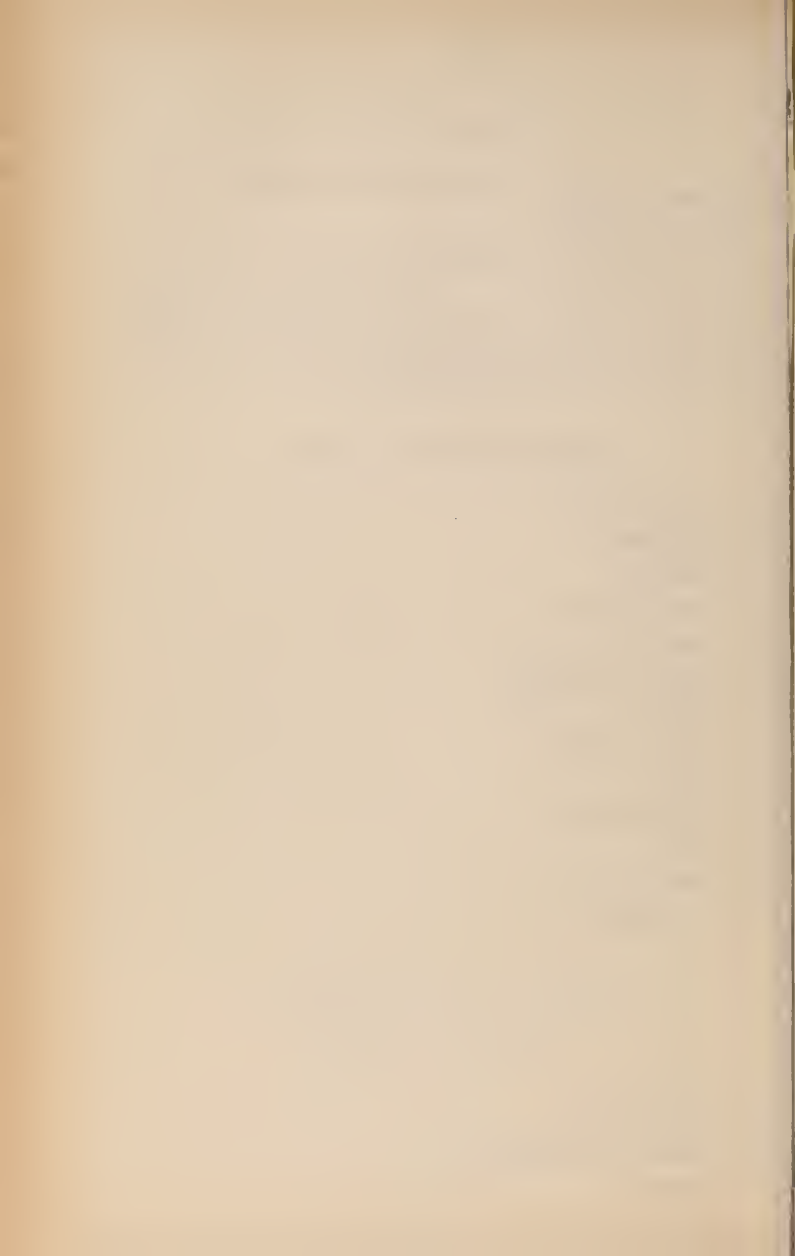
1.—Columnar or fastigate.

Var. Alumi.

Var. erecta viridis.

Var. erecta viridis argentea.

Var. Fraseri.



C. lawsoniana—*cont.*2.—*Spreading.*

- Var. amabilis.
- Var. Bowleri.
- Var. californica.
- Var. darleyensis.
- Var. fragrans.
- Var. fragrans argentea.
- Var. intertexta.
- Var. juniperina.
- Var. patula.
- Var. Smithii.
- Var. Youngi.

3.—*Pendulous.*

- Var. glauca pendula.
- Var. gracilis pendula.
- Var. gracilis gracillima.
- Var. pendula vera.

4.—*Globose, dwarf varieties.*

- Var. compacta.
- Var. nana.
- Var. Shawii.

C. nootkatensis, *Lamb.* ; Oregon, British Columbia.
 Chamaecyparis nutkaensis, *Spach.* ; *Beissner*, Handbuch,
 81, f. 19.

Thuiopsis borealis, *Hort.*

T. treubetskoyana, *Hort.*

T. Tschugatskoyii, *Hort.*

- Var. albo-variegata.
- Var. argenteo-variegata.
- Var. aureo-viridis.
- Var. compacta.
- Var. gracilis.



C. nootkatensis —*cont.*

Var. *lutea*.

Var. *nidifica*, *Rovelli*.

Var. *pendula*.

Var. *variegata*.

C. obtusa, *C. Koch*. Mountains of Japan.

Chamaecyparis obtusa, *Sieb. & Zucc.*

Retinispora obtusa, *Sieb. & Zucc.*

Thuya obtusa, *Mast.*

Var. *pygmaea*.

Thuya obtusa var. *pygmaea*, *Hort.*

Chamaecyparis obtusa, var. *pygmaea*, *Hort.*

Stages of growth and Varieties of *C. obtusa* all known as *Retinisporas* (often spelt *Retinospora*) in gardens.

Var. *aurea*.

Var. *compacta*.

Var. *erecta viridis*.

Var. *filicoides*.

Var. *gracilis*.

Var. *gracilis aurea*.

Var. *Keteleeri*.

Var. *lycopodioides*.

Var. *magnifica*.

Var. *nana*.

Var. *nana aurea*.

Var. *variegata*.

C. pisifera, *C. Koch*. Mountains of Japan.

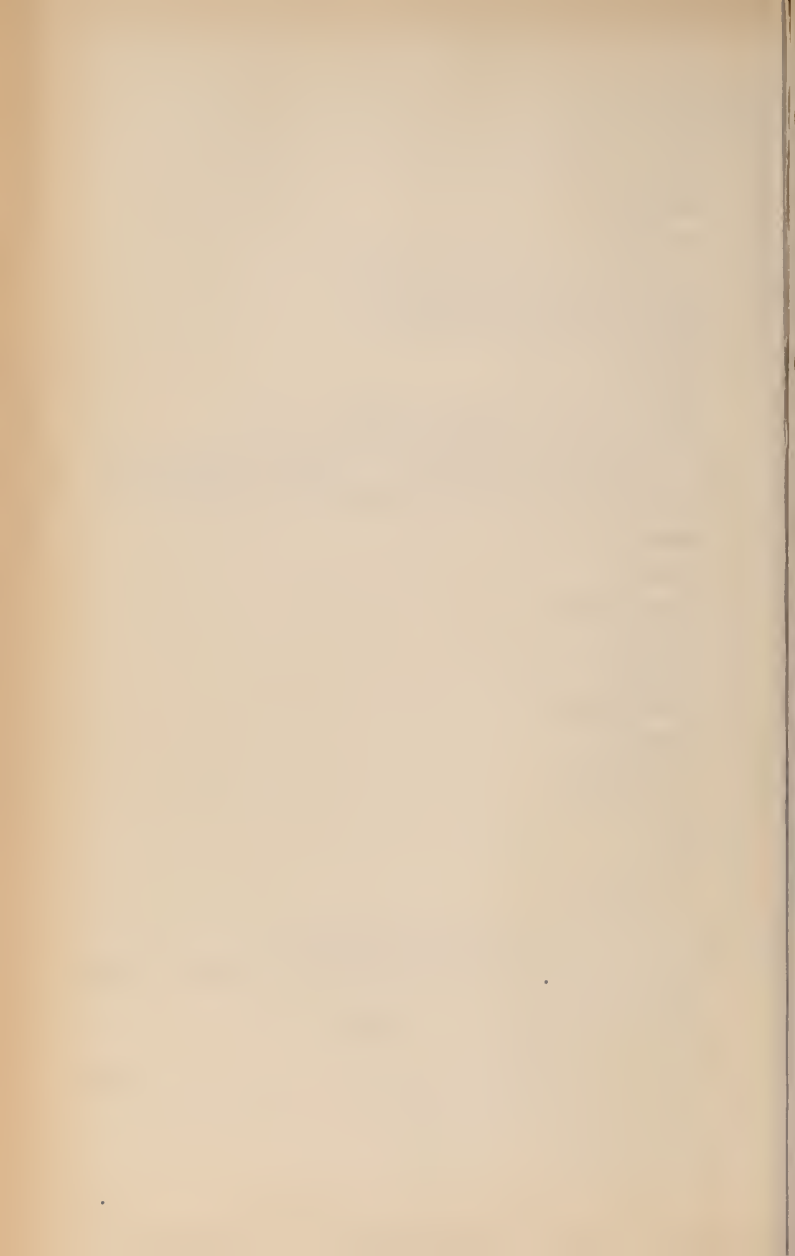
Chamaecyparis pisifera, *Sieb. & Zucc.* *Beissner*, Handbuch, 84, f. 20.

Retinispora pisifera, *Sieb. & Zucc.*

Thuya pisifera, *Mast.*

Stages of growth and Varieties of *C. pisifera* all called *Retinispora* in gardens.

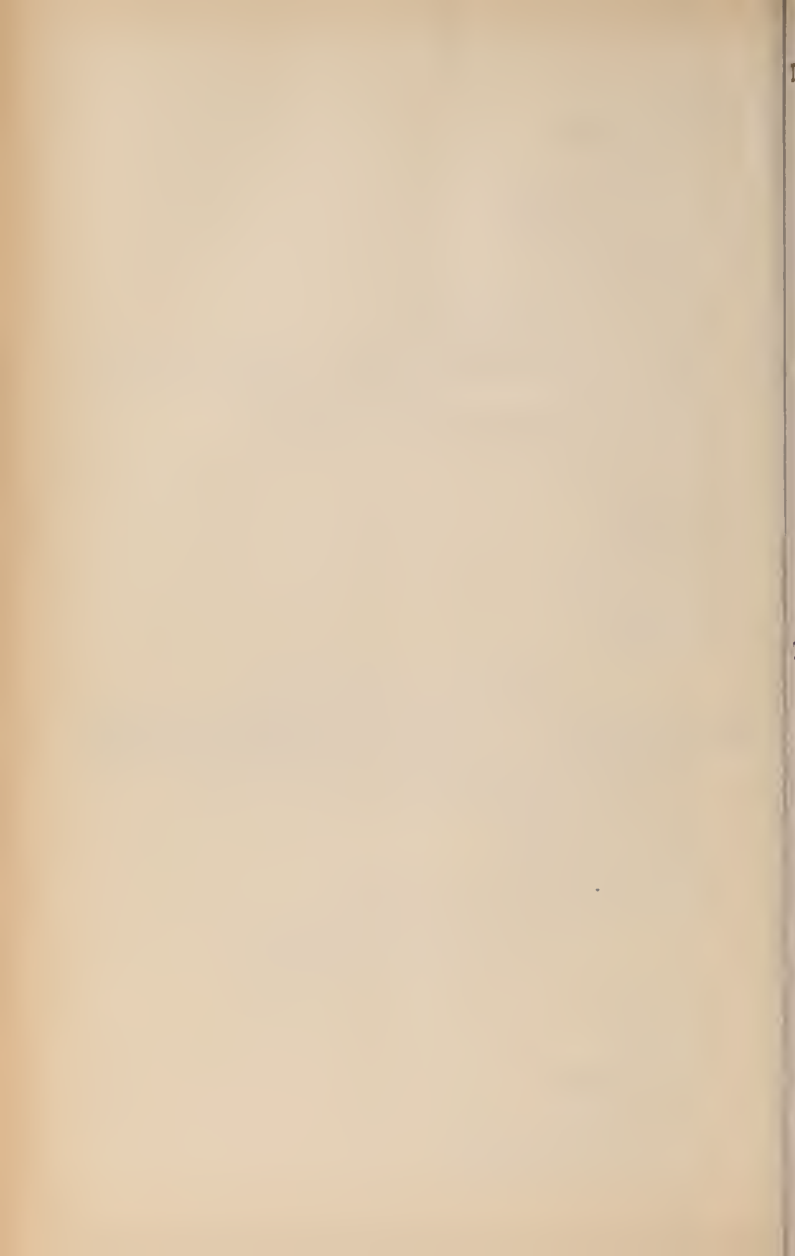
Var. *albo picta*.



C. pisifera—*cont.*Var. *darleyensis*.Var. *plumosa*.Var. *plumosa argentea*.Var. *plumosa aurea*.Var. *squarrosa*.Var. *squarrosa sulphurea*.*C. thyoides*, *L.* East United States.Chamaecyparis sphaeroidea, *Spach.* ; *Beissner*, Handbuch,
p. 66, f. 13.Retinispora ericoides, *Gord.* (*not Veitch*).Var. *atrovirens*.Var. *glauc*a.Var. *Hovei*i.Var. *kewensis*.Var. *variegata*.Var. *viridis*.†EUTHUYA.—“*Arborvitæ*.”*Thuja occidentalis*, *L.* ; *Beissner*, Handbuch der Nadelholzkunde, 34, f. 4. Canada and North-Eastern States of North America to mountains of North Carolina. “The American *Arborvitæ*.”*T. odorata*, *Marsh*.*T. obtusa*, *Moench*.*T. sibirica*, *Hort*.*Cupressus Arbor-vitæ*, *Targ. Tozz*.

Variations in Colour of Foliage.

Var. *aurea*,Var. *lutea*,Var. *vervaeneana*.Var. *wareana*.*T. caucasica*, *Hort*.Var. *wareana lutescens*.



Thuya occidentalis—*cont.*

Variations in Form and Habit.

Var. *Bodmeri*.Var. *Dicksoni*.Var. *ellwangeriana*.Var. *erecta*.Var. *erecta viridis*.Var. *ericoides*.Retinispora dubia, *Hort.*Var. *globosa*.Var. *globosa compacta*.Var. *Hoveii*.Var. *pendula*.Var. *Spaethii*.T. *Ohlendorfi*, *Hort.*T. *tetragona*, *Hort.*

†† MACROTHUYA.

T. *gigantea*, *Nutt.*; *Beissner*, Handbuch, 48, f. 7. North-
Western America.T. *craigiana*, *Hort.*T. *Lobbi*, *Hort.*T. *Menziesii*, *Carr.*Var. *compacta*.Var. *pendula*.Var. *plicata*, *Donn.*T. *asplenifolia*, *Hort.*T. *caucasica*, *Hort. alig.*T. *flabellata*, *Hort.*T. *lycopodioides*, *Hort.*T. *Menziesii*, *Dougl.*T. *occidentalis* var. *compacta*, *Knight.*T. *occidentalis* var. *plicata*, *Hort.*T. *plicatilis*, *Hort.*T. *sibirica*, *Hort. alig.*T. *wareana*, *Booth* (not of others).Var. *plicata cristata*.Var. *plicata lutea*.



T. japonica, *Maxim.* Japan.

Thuya gigantea var. *japonica*, *Franch. & Sav.*

T. Standishii, *Carr.*

Thuyopsis Standishii, *Gord.*

††† THUYOPSIS.

T. dolabrata, *L. f.* Mountains of Japan.

Thuyopsis dolabrata, *Sieb. & Zucc.*; *Beissner*, Handbuch, 53, f. 9.

Platycladus dolabrata, *Spach.*

Var. *variegata*.

Var. *nana*, *Sieb. & Zucc.*

Thuyopsis laetevirens, *Lindl.*

†††† BIOTA.—“*Chinese Arborvitæ*.”

T. orientalis, *L.* North China and Japan.

T. acuta, *Moench.*

Biota orientalis, *Endl.*; *Beissner*, Handbuch, 55, f. 10.

Cupressus Thuya, *Targ. Tozz.*

Platycladus stricta, *Spach.*

Var. *athrotaxoides*.

Var. *argenteo-variegata*.

Biota orientalis var. *argentea*, *Gord.*

B. orientalis var. *variegata*, *Endl.*

Thuya argentea, *Hort.*

T. variegata, *Hort.*

Var. *aurea*.

Biota orientalis aurea nana, *Hort.*

Thuya aurea, *Hort.*

T. nana aurea, *Hort.*

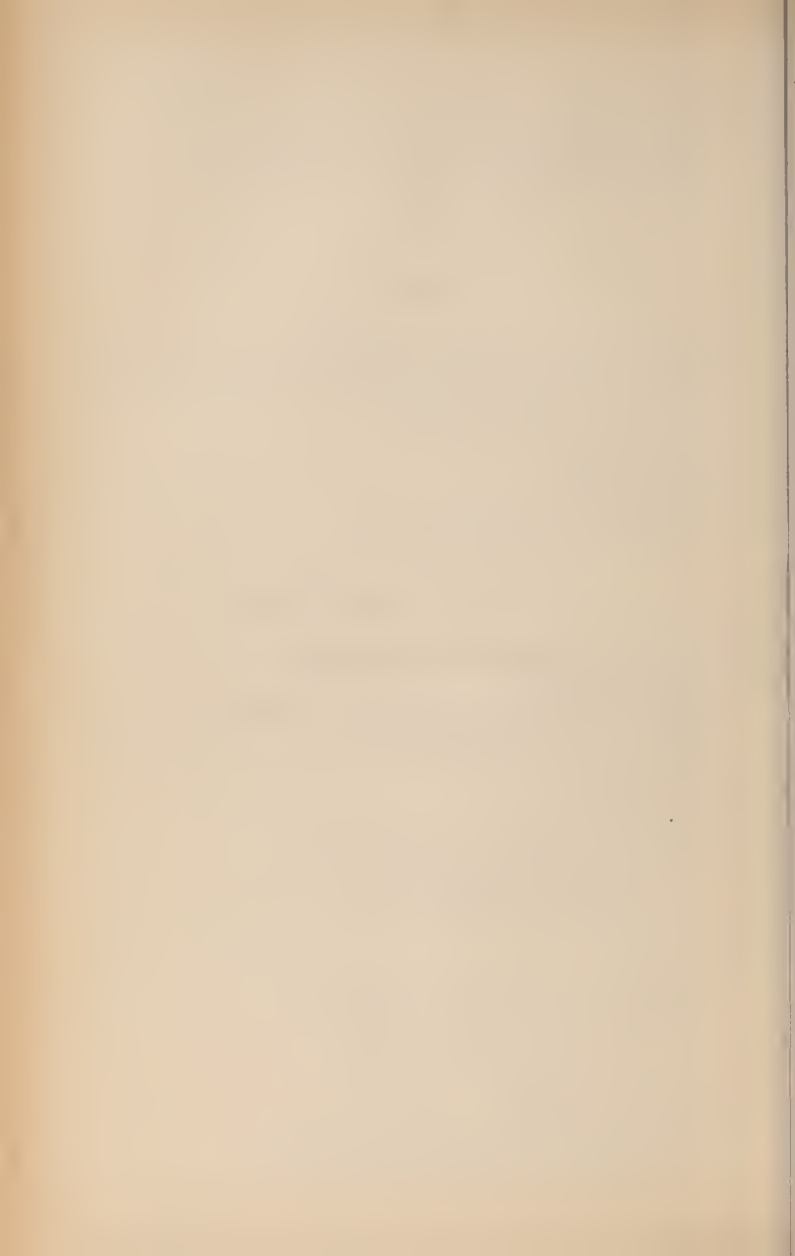
T. nana compacta aurea, *Hort.*

Var. *aureo-variegata*.

Biota orientalis var. *variegata*, *Gord.*

Thuya orientalis aureo-variegata, *Hort.*

T. variegata, *Hort.*



T. orientalis—*cont.*

Var. *compacta*.

Biota japonica, *Sieb.*

B. orientalis var. *nana*, *Carr.*

B. orientalis var. *Sieboldi*, *Endl.*

B. zuccariniana, *Sieb.*

Thuya compacta, *Hort.*

T. nana, *Hort.*

T. zuccariniana, *Hort.*

Var. *decussata*.

Biota orientalis var. *decussata*, *Beissn. & Hochst.*

Chamaecyparis decussata, *Hort.*

Frenela glauca, *Hort.* (not *Mirbel*).

Juniperus glauca, *Hort.*

Retinispora flavescens, *Hort.*

R. juniperoides, *Carr.*

R. rigida, *Carr.*

R. squarrosa, *Hort.* (not *Zucc.*).

Var. *densa*.

Biota orientalis densa glauca, *Hort.*

Var. *elegantissima*.

Biota elegantissima, *Hort.*

Var. *ericoides*.

Retinispora ericoides, *Hort.*

Var. *falcata*.

Var. *freneloides*.

Var. *Froebeli*.

Var. *funiculata*.

Var. *globosa*.

Var. *gracilis*.

Thuya freneloides, *Hort.*

T. japonica, *Hort.*

T. nepalensis, *Hort.*

Var. *Hoveyii*.

Var. *incurvata*.

Var. *intermedia*.

Biota orientalis var. *intermedia*, *Carr.*

B. intermedia, *Hort.*

B. pendula, *Endl.* var.

Thuya intermedia, *Hort.*



T. orientalis—cont.

Var. meldonensis.

Biota meldonensis, *Gord.*

Retinispora meldonensis, *Hort.*

Thuya hybrida, *Hort.*

T. meldonensis, *Hort.*

T. orientalis meldonensis, *Hort.*

Var. minima.

Biota orientalis minima glauca, *Hort.*

Var. pendula.

Biota orientalis var. *pendula*, *Parl.*

B. pendula, *Endl.*

B. pendula var. *recurvata*, *Gord.*

Cupressus pendula, *Thunb.*

C. patula, *Pers.*

C. pendulata, *Hort.*

C. filiformis, *Hort.*

Thuya filiformis, *Lodd.*

T. flagelliformis, *Hort.*

T. orientalis var. *flagelliformis*, *Jacques.*

T. pendula, *Lamb.*

Var. pyramidalis, Endl.

Biota orientalis var. *expansa*, *Endl.*

B. orientalis var. *tatarica*, *Endl.*

B. tatarica, *Lindl.*

Thuya australis, *Hort.*

T. orientalis cupressoides, *Hort.*

T. orientalis var. *stricta*, *Loud.*

T. orientalis var. *tatarica*, *Loud.*

T. pyramidalis, *Tenore.*

T. tatarica, *Forbes.*

Var. semperaeurescens.

Biota orientalis semperaeurea, *Hort.*

Libocedrus chilensis, *Endl.*; *Gard. Chron.*, 1850, 439, f. *Chilian Andes.*

Thuya chilensis, *D. Don*; *Hook. London Journal of Botany*, ii., 199, t. 4.

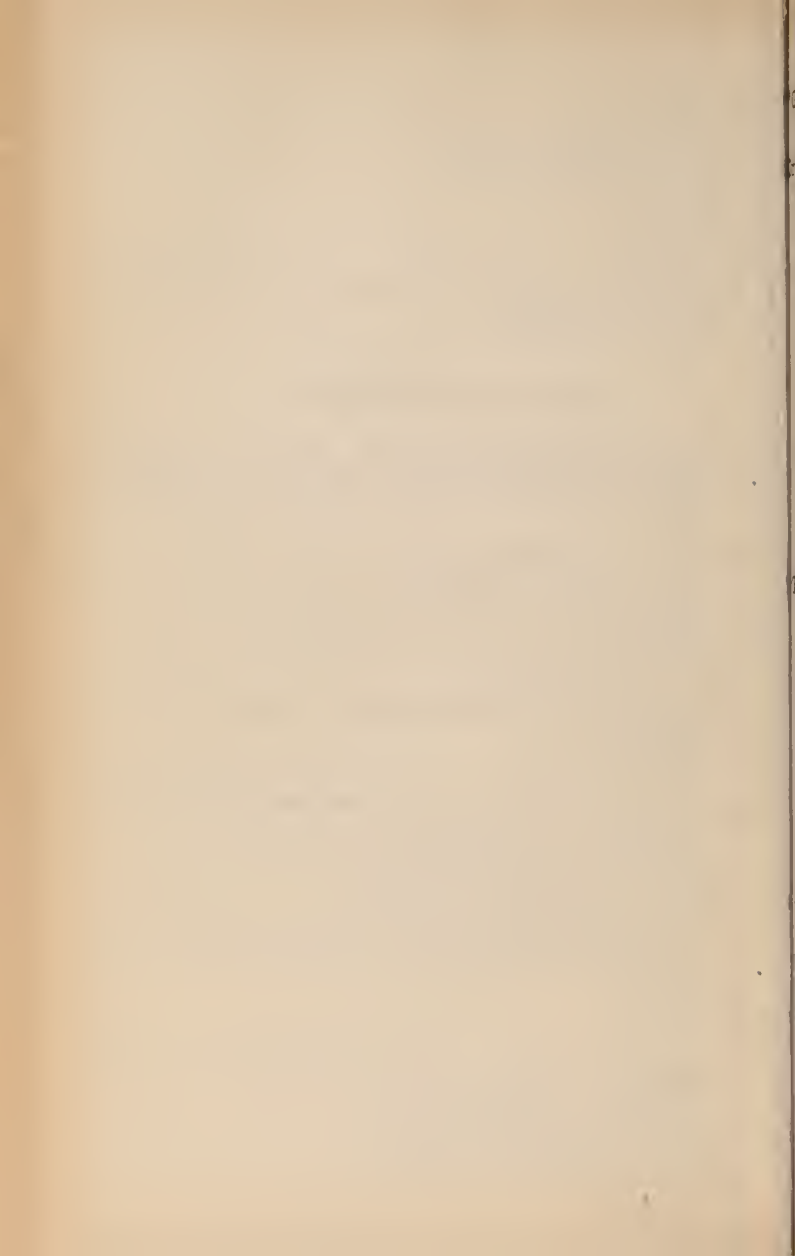
T. decurrens, *Torr.*; *Veitch, Manual of Coniferae*, 267, *Beissner, Handbuch*, 28, f. 2. Oregon to South California on mountains near the sea.



L. decurrens--cont.*Heyderia decurrens*, *C. Koch.**Thuya craigiana*, *A. Murr.**T. gigantea*, *Hort.*Var. *glauca*.Var. *compacta*.**L. doniana*, *Endl.*; *Kirk*, Forest Flora of New Zealand, tt. 82, 83. New Zealand.

Tribe II.—Taxodineæ.

Sciadopitys verticillata, *Sieb. & Zucc.* Fl. Jap. ii. t. 101; *Veitch*, Manual, 202, f.f. 46, 47. Japan. "The Umbrella Pine."**Athrotaxis cupressoides*, *D. Don.*; Gard. Chron., 1885, xxiv., 273, f. 60. Tasmania.**A. laxifolia*, *Hook.*; Gard. Chron., 1885, xxiv., 584, f. 134. Tasmania.*Athrotaxis doniana*, *Hort.***A. selaginoides*, *D. Don.*; Gard. Chron., 1888, iv., 544, f. 79. Tasmania.*A. gunniana*, *Hort.**Sequoia gigantea*, *Torr.*; *Beissner*, Handbuch, 163, fig. 41. California. "Wellingtonia, Mammoth Tree."*Sequoia Wellingtonia*, *Seem.**Taxodium washingtonianum*, *Winsl.**Washingtonia californica*, *Winsl.**Wellingtonia gigantea*, *Lindl.*; *Veitch*, Manual, 205, f. 48; Bot Mag. t.t. 4777, 4778.Var. *aurea*.Var. *pendula*.*S. sempervirens*, *Endl.*; *Beissner*, Handbuch, 158, f. 39. California. "Redwood."*Schubertia sempervirens*, *Spach.**Taxodium sempervirens*, *Lamb.*Var. *albo-spica*.Var. *gracilis*.



Hyptostrobos heterophyllus, *Endl.* China.

Taxodium heterophyllum, *Brongn.*

Cryptomeria japonica, *D. Don*; *Beissner*, Handbuch, 142, f. 337. Mountains of Japan and China.

C. Fortunei, *Otto & Dietr.*

Cupressus japonica, *L. f.*

Taxodium japonicum, *Brongn.*

Var. *elegans*, *Veitch*, Manual, 218, f. 51.

Cryptomeria Veitchii, *Hort.*

Var. *araucarioides*.

Var. *elegans nana*.

Var. *Lobbi*.

Var. *Lobbi nana*.

Var. *pungens*.

Var. *spiralis*.

Taxodium distichum, *Rich.*; *Beissner*, Handbuch, 151, f. 38.

Southern United States. "The Deciduous Cypress."

Cupressus disticha, *L.*

Taxodium microphyllum, *Brongn.*

Var. *pendulum*.

Glyptostrobos pendulus, *Endl.*; Bot. Mag. t. 5603.

Taxodium sinense, *Gord.*

Tribe III.—Araucarineæ.

Cunninghamia sinensis, *R. Br.*; Bot. Mag. t. 2743; *Beissner*, Handbuch, 197, f. 49. South China.

Belis jaculiflora, *Salisb.*

Pinus lanceolata, *Lamb.*

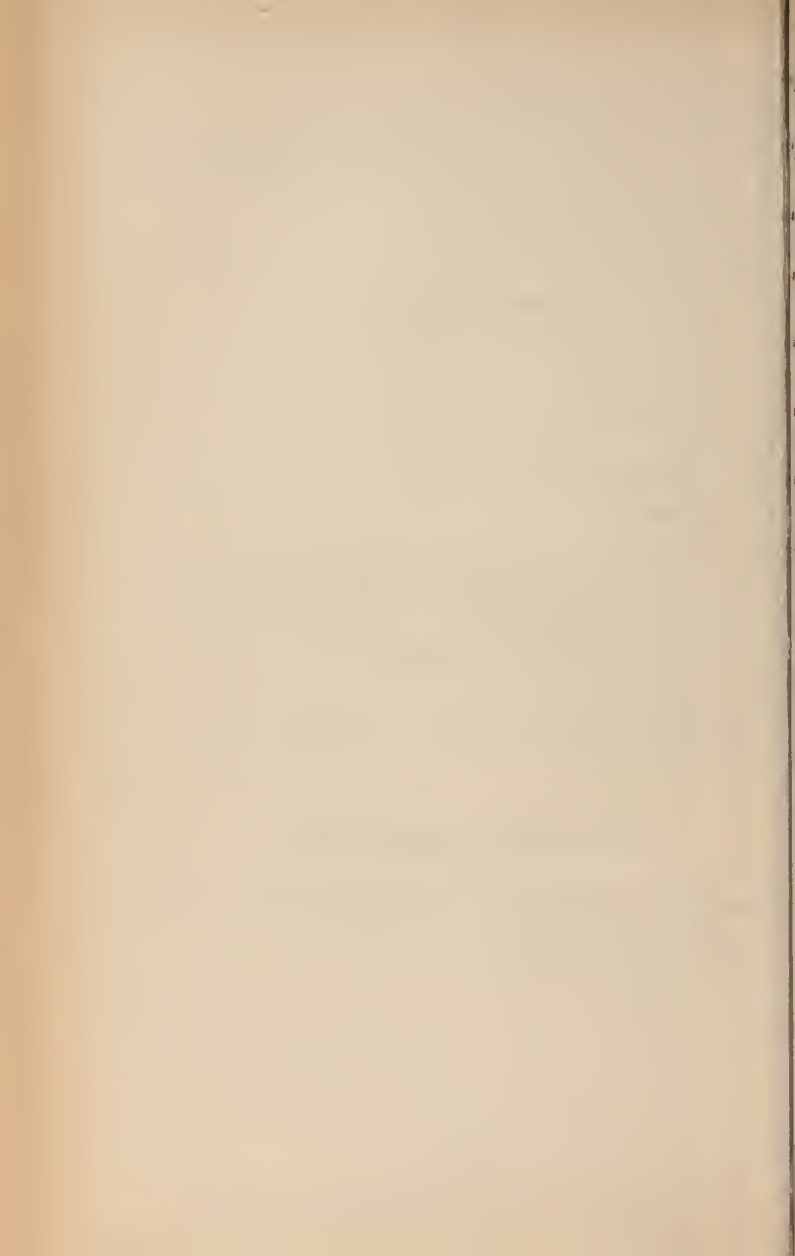
**Agathis australis*, *Salisb.* New Zealand. "The Kauri Pine."

Dammara australis, *Lamb.*; Gard. Chron., 1883, xx., 525, f. 86.

**A. loranthifolia*, *Salisb.* Malaya.

**A. Moorei*, *Mast.* New Caledonia.

Dammara Moorii, *Lindl.* Journ. Hort. Soc., 1851.

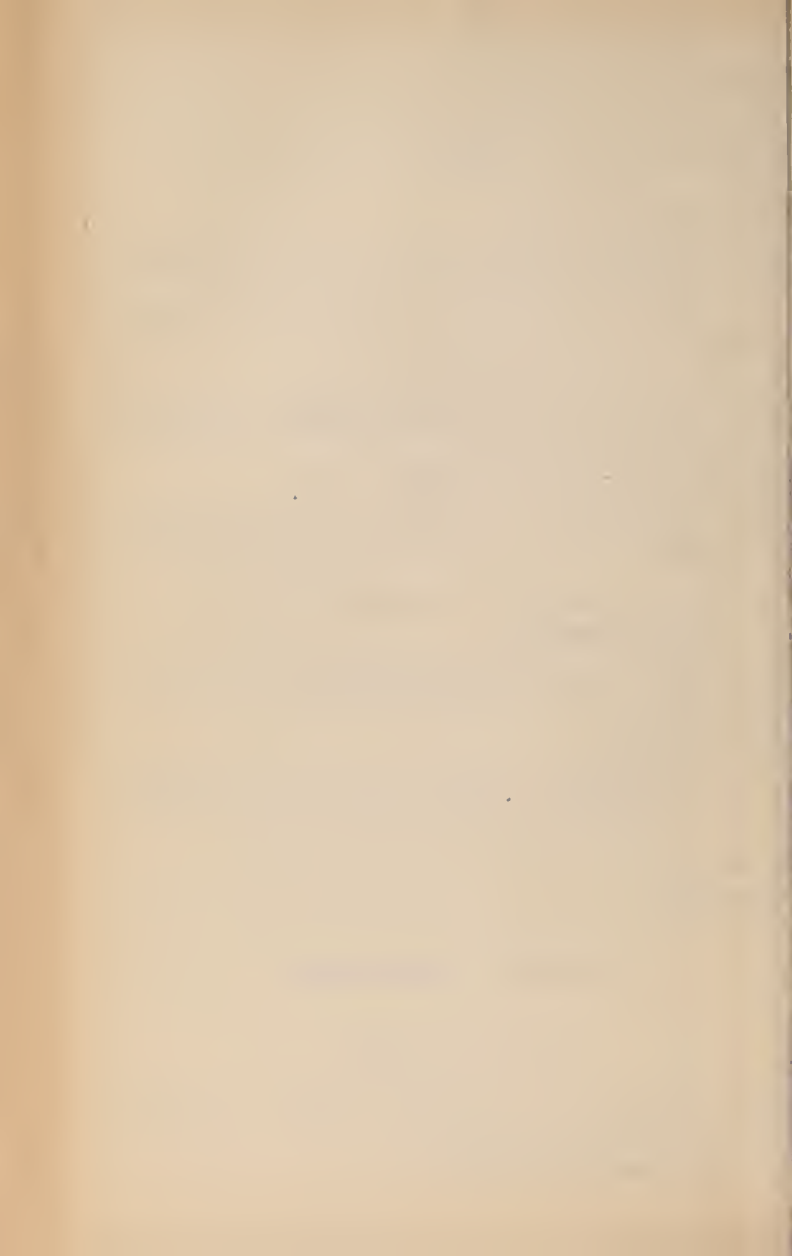


- A. obtusa*, *Mast.* New Hebrides.
Dammara obtusa, *Lindl.*
- A. robusta*, *Mast.* N. E. Australia.
Dammara robusta, *C. Moore.*
- A. vitiensis*, *Mast.* Fiji.
Dammara vitiensis, *Seem.*
- Araucaria Balansae*, *Brongn. & Gris.*; Ill. Hort. 1894, xxi.,
 t. 197. New Caledonia.
- A. Bidwillii*, *Hook.*; Gard. Chron., 1873, 361, f. 73. Queens-
 land. "The Bunya Bunya."
- A. brasiliiana*, *Rich.* Mountains of S. Brazil.
A. brasiliensis, *Loud.*; Gard. Chron., 1887, i., 680, f. 132.
- A. Cookii*, *R. Br.* New Caledonia.
A. columnaris, *Hook.* Bot. Mag. t. 4635.
- A. Cunninghamii*, *Aiton.* Queensland. "The Moreton Bay
 Pine."
- **Var. glauca.* Gard. Chron., 1888, iii., 685, f. 90.
A. glauca, *Antoine.*
- **A. excelsa*, *R. Br.*; Flore des Serres, t.t. 2304, 2305.
 Norfolk Island. "Norfolk Island Pine."
- **Var. albo-spica.*
- **Var. goldieana*, New Caledonia.
A. goldieana, *T. Moore*, Florist and Pomologist,
 1877, 39. f.
- A. imbricata*, *Pav.* Mountains of Southern Chile.
Var. aurea.

Tribe IV.—Abietineæ.

Sub-tribe I.—PICEÆ.

- Tsuga brunoniana*, *Carr.*; Gard. Chron., 1886, xxvi., 501, f. 101.
 East and Central Himalayas.
Abies brunoniana, *Lindl.*



Tsuga brunoniana—*cont.*

A. dumosa, *Loud.*

Pinus brunoniana, *Wall.*

P. dumosa, *D. Don.*

T. canadensis, *Carr.*; *Beissner*, Handbuch, 401, f. 709. N. E. America. "The Hemlock Spruce."

Abies americana, *Marsh.*

A. canadensis, *Michx.*; *Veitch*, Manual, 114, f. 29.

A. curvifolia, *Salisb.*

Picea canadensis, *Link.*

Pinus americana, *Duroi.*

P. canadensis, *L.*

Var. *argentea*.

Var. *parvifolia*.

Var. *pendula*.

T. caroliniana, *Engelm.*; *Sargent*, Gard. Chron., 1886, xxvi., 780, f. 153; *Beissner*, Handbuch, 406, f. 111. Southern Alleghanies.

Abies caroliniana, *Chapm.*

T. Sieboldi, *Carr.*; *Beissner*, Handbuch, 395, f. 106. Japan.

Abies Araragi, *Loud.*

A. Tsuga, *Veitch*, Manual, 118, f. f. 33, 34.

Pinus Tsuga, *Antoine.*

P. Araragi, *Sieb.*

Tsuga diversifolia, *Maxim.*

Tsuga Tsuga, *A. Murr.*

Var. *nana*.

T. mertensiana, *Carr.* N. W. America.

Abies albertiana, *A. Murr.*

A. Bridgesii, *Kellogg.*

A. mertensiana, *Lindl. & Gord.*

A. pattoniana, *McNab* (not *Parl.*).

Pinus canadensis, *Bong.*

P. mertensiana, *Bong.*

T. pattoniana, *Engelm.* Mountains of California.

Abies hookeriana, *A. Murr.*

A. pattoniana, *Jeffrey*; *Veitch*, Manual, 116, f. f. 30, 31.
Beissner, Handbuch, 409, f. 113.

A. Williamsons, *Newb.*

Hesperopeuke pattoniana, *Lemmon.*

Pinus pattoniana, *Parl.*



† EUPICEA.—“*Spruce Firs.*”

Picea alba, *Link.*; *Beissner*, Handbuch, 341, f. 96. North Eastern America, British Columbia.

Abies alba, *Michx.*

A. alba var. *caerulea*, *Carr.*

A. arctica, *Scem.*

A. caerulea, *Forbes.*

A. canadensis, *Mill.*

A. laxa, *C. Koch.*

A. rubra var. *caerulea*, *Loud.*

Picea caerulea, *Link.*

P. nigra var. *glauca*, *Carr.*

Pinus alba, *Lamb.*

P. canadensis, *Duroi* (not *L.*).

P. glauca, *Moench.*

P. laxa, *Ehrh.*

P. rubra var. *violacea*, *Endl.*

Var. *caerulea*.

P. alcockiana, *Carr.*; *Beissner*, Handbuch, 379, f. 101. Japan.

Abies acicularis, *Hort.*

A. alcockiana, *Veitch.*

A. bicolor, *Maxim.*

A. excelsa acicularis, *Hort.*

Pinus alcockiana, *Parl.*

P. Engelmanni, *Engelm.*; *Beissner*, Handbuch, 344, f. 97. British Columbia, Oregon to Arizona.

Abies alba, *Torr.*

A. Engelmanni, *Parry.*

A. nigra, *Engelm.*

Pinus commutata, *Parl.*

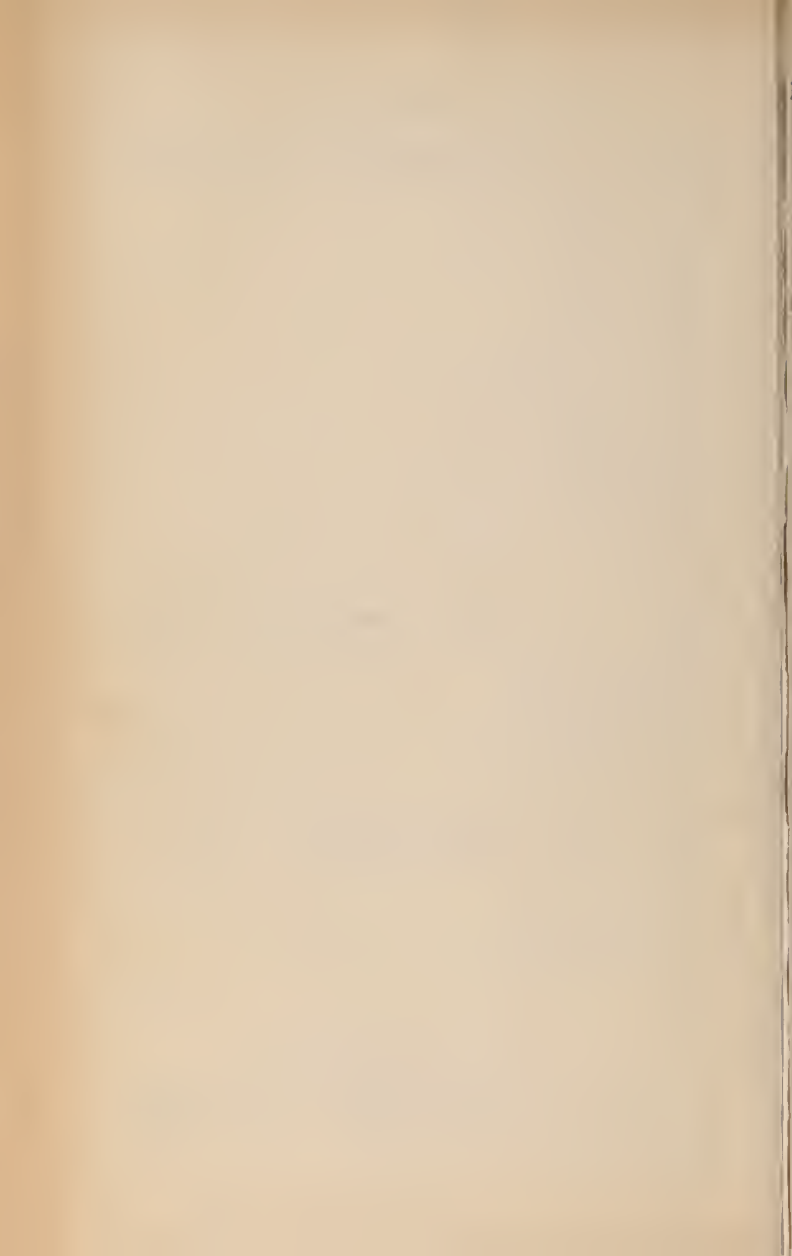
P. Engelmanni, *Engelm.*

Var. *glauca*.

P. ericoides, *Hort.* A variety of uncertain origin.

P. excelsa, *Link.*; *Beissner*, Handbuch, 353, f. 99. Mountains of Northern and Central Europe. “The common Spruce.”

Abies excelsa, *DC.*



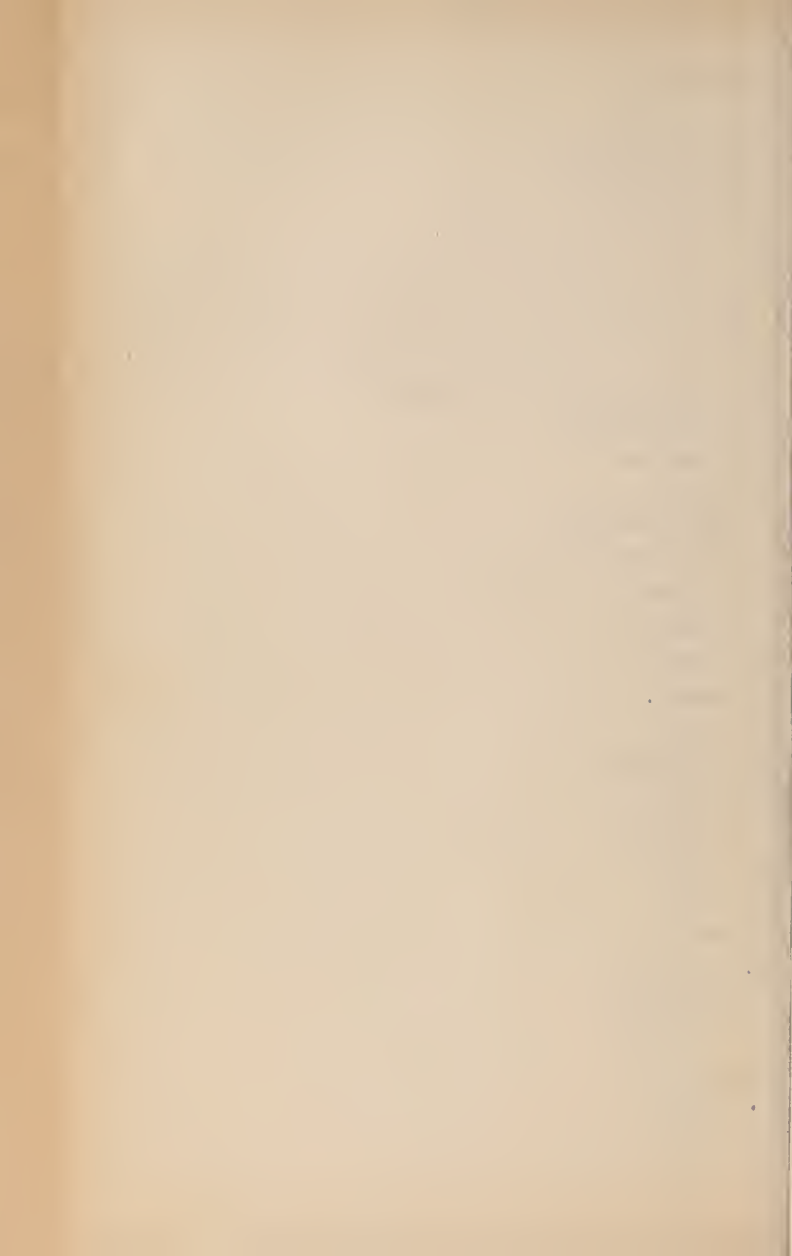
P. excelsa—*cont.**A. Picea, Mill.**A. rubra, Bauhin.**Picea vulgaris, Link.**Pinus Abies, L.**P. excelsa, Lam. (not Wall.).*

The varieties are extremely numerous and may be classified into—

1. dwarf varieties, 2. snake-branched, or so-called “monstrosa,” varieties, 3. pendulous varieties, 4. colour varieties.

The following are represented at Kew :—

Var. *argenteo-spica*.Var. *attenuata*.Var. *aurea*.Var. *clanbrassiliana*.Var. *clanbrassiliana elegans*.Var. *compacta*.Var. *Dicksoni*.Var. *diffusa*.Var. *dumosa*.Var. *eremita*.Var. *finedonensis*.Var. *gigantea*.Var. *gregoryana*.Var. *inverta*.Var. *Laingi*.Var. *laxa*.Var. *Maxwelli*.Var. *microsperma*.Var. *monstrosa*.Var. *mucronata*.Var. *pendula*.Var. *pygmaea*.



P. excelsa—*cont.*

Var. *pyramidalis*.

Var. *Remonti*.

Var. *stricta*.

Var. *tenuifolia*.

P. Glehni, *F. Schmidt*; *Mast.* Gard. Chron., 1880, xiii., 300, f. 54. Island of Sachalin.

P. Maximowiczii, *Regel*; Gard. Chron., 1880, xiii., 363, f. 64. Japan.

Abies Maximowiczii, *Hort.*

Picea obovata var. *japonica*, *Maxim.*

P. Morinda, *Link*; Gard. Chron., 1885, xxiv., 393, f. 85. Himalaya.

P. smithiana, *Boiss.*

Abies Khutrow, *Loud.*

A. smithiana, *Forbes.*

Pinus Khutrow, *Royle.*

P. smithiana, *Lamb.*

P. nigra, *Link*; *Beissner*, Handbuch, 334, f. 94. North Eastern America.

Abies alba, *Chapm.*

A. americana, *C. Koch.*

A. arctica, *Hort.* (not *Seem.*).

A. denticulata, *Michx.*

A. Mariana, *Mill.*

A. marylandica, *Hort.*

A. nigra, *Poir.*

Pinus Mariana, *Duroi.*

P. nigra, *Ait.*

Var. *aureo-marginata*.

Var. *Doumetti*.

P. obovata, *Ledeb.* N. E. Europe and N. Asia.

Abies obovata, *Loud.*

Var. *japonica*, *Maxim.*

Var. *schrenkiana*, *Mast.*



2. *orientalis*, *Carr.*; *Gard. Chron.* 1886, xxv., 333, f. 62.
Mountains of the Taurus and Caucasus.

Abies orientalis, *Poir.*

A. wittmanniana, *Hort.*

Pinus orientalis, *L.*

Var. *aurea*.

Var. *nana*.

2. *polita*, *Carr.*; *Beissner*, *Handbuch*, p. 380, f. 102;
Gard. Chron., 1880, xiii., 233, f. 44. Mountains of
Japan.

Abies Torano, *Sieb.*

A. polita, *Sieb. & Zucc.*

2. *pungens*, *Engelm.* Utah and California.

Picea commutata, *Hort. aliq.*

P. Engelmanni, *Hort.* (not *Engelm.*).

P. Menziesii, *Hort.* (not *Carr.*).

P. parryana, *Hort.*

Abies Engelmanni, *Hort.* (not *Engelm.*).

A. Menziesii, *Engelm.* (in part).

A. Parlatoresii, *Hort.*

Var. *diversifolia*.

Var. *glauca*.

P. annesleyana, *Hort.*

P. parryana glauca, *Hort.*

P. pungens argentea, *Hort.*

2. *rubra*, *Link*; *Beissner*, *Handbuch*, 339, f. 95.

Picea nigra var. *rubra*, *Engelm.*

Abies nigra var. *rubra*, *Michx.*

A. rubra, *Poir.*

A. rubra var. *arctica*, *Lindl. & Gord.*

Pinus americana, *Gaertn.*

P. americana var. *rubra*, *Wangenh.*

P. rubra, *Lamb.*

†† OMORICA.—“*Flat-leaved Spruce Firs.*”

2. *ajanensis*, *Fisch.*; *Beissner*, *Handbuch*, p. 386, f. 104.

Amoor, Japan.

Abies ajanensis, *Veitch.*



P. ajanensis—*cont.**A. alcockiana*, *Hort.* (in part).*A. sitchensis*, *C. Koch* (not *Bong.*).*Picea Menziesii*, *Parl.**Tsuga ajanensis*, *Regel.*Var. *microsperma*.*P. ajanensis* var. *japonica*.*P. jezoensis*, *Maxim.* (not *Sieb.*).*P. hondoensis*, *Mayr.* Japan.*P. Omorica*, *Mast.*; Gard. Chron., 1884, xxi., 308, f. 58;
Beissner, Handbuch, 383, f. 103. Servia, Bosnia.*Pinus Omerika*, *Panc.**P. sitchensis*, *Trautv. & Mey.*; *Beissner*, Handbuch, 391,
f. 105. Gard. Chron., 1886, xxv., 728, f. 161. N.W.
America.*Picea Menziesii*, *Carr.**P. sitkaensis*, *Mayr.**Abies Menziesii*, *Loud.**A. sitchensis*, *Lindl. & Gord.**Pinus Menziesii*, *Dougl.**P. sitchensis*, *Bong.*Sub-tribe II.—*LARICEÆ*.

CEDARS.

Cedrus atlantica, *Manetti*; Gard. Chron., 1891, x., 425, f. 53.
North Africa. "The Atlas Cedar."*C. africana*, *Gord.**Abies atlantica*, *Lindl. & Gord.**Pinus Cedrus* var. *atlantica*, *Parl.*Var. *glauca*.Var. *aurea*.Var. *pendula*.*C. Deodara*, *Loud.*; Gard. Chron., 1891, x., 423, f. 52.
Himalaya. "The Deodar."*Cedrus indica*, *Chambr.*



2. *Deodara*—*cont.*

- C. Libani* var. *Deodara*, *Hook. f.*
- Abies Deodara*, *Lindl.*
- Larix Deodara*, *C. Koch.*
- Pinus Deodara*, *Roxb.*

Var. *albo-spica*.

Var. *crassifolia*.

Var. *erecta*.

Var. *robusta*.

Var. *variegata*.

Var. *verticillata*.

Var. *viridis*.

Var. *Youngi*.

3. *Libani*, *Loud.*; *Gard. Chron.*, 1878, ix., f. 113; 1886, xxvi., 521, f. 102; 553, f. 109; *Beissner*, *Handbuch*, 299, f. 74.
 Syrian Mountains. "Cedar of Lebanon."

C. patula, *C. Koch.*

Abies Cedrus, *Poir.*

Larix Cedrus, *Mill.*

L. patula, *Salisb.*

Pinus Cedrus, *L.*

- Var. *brevifolia*, *Hook. f.* *Journ. Linn. Soc.*, xvii., 517.
 Cyprus.

LARCHES.

- Larix davurica*, *Trautv.* Siberia.

L. dahurica, *Turcz.*; *Beissner*, *Handbuch*, 329, f. 90.

- L. europaea*, *DC.* European Alps. "The Larch."

L. decidua, *Mill.* (1759).

L. excelsa, *Link.*

L. pyramidalis, *Salisb.* (1805).

L. vulgaris, *Fisch.*

Abies Larix, *Lam.*

Pinus Larix, *L.*

Var. *pendula*.

Var. *pendulina*, *Regel*; *Beissner*, *Handbuch*, 325, f. 89.

Var. *rossica*, *Regel*; *Beissner*, *Handbuch*, 325, f. 88.

Var. *sibirica*, *Beissner*, *Handbuch*, 324, f. 87.

L. archangelica, *Hort.*



L. Griffithii, *Hook. f.*; Gard. Chron., 1886, xxv., 718, f. 157;
Beissner, Handbuch, 317, f. 82. Eastern Himalaya.
Abies griffithiana, *Lindl. & Gord.*
Pinus Griffithii, *Parl.*

L. leptolepis, *Endl.*; *Beissner*, Handbuch, 318, f. 83; Gard.
 Chron., 1883, xix., 88, f. 13. Japan.
L. japonica, *Carr.*
Abies leptolepis, *Sieb. & Zucc.*
P. leptolepis, *Endl.*

Var. *murrayana*.

L. occidentalis, *Nutt.* North-Western America.
Pinus Nuttallii, *Parl.*

L. pendula, *Salisb.* (1805). North-Eastern America.
 "Tamarack."
Larix americana, *Michx.* (1813).
L. americana var. *rubra*, *Loud.*
L. microcarpa, *Forbes.*
Abies microcarpa, *Lindl. & Gord.*
A. pendula, *Lindl. & Gord.*
Pinus laricina, *Duroi.*
P. microcarpa, *Lamb.*
P. pendula, *Ait.*

Pseudolarix Kaempferi, *Gord.*; Gard. Chron., 1884, xxi.,
 584, f. 113; 1884, xxii., 238, f. 48. China. "The
 Golden Larch."

P. Fortunei, *Mayr.*
Abies Kaempferi, *Lindl.*
Larix Kaempferi, *Carr.*
Pinus Kaempferi, *Lamb.*

Sub-tribe III.—SAPINEÆ.

Keteleeria Fortunei, *Carr.*; *Rev. Hort.*, 1887, 207, ff. 42-5;
Beissner, Handbuch, 422, f. 116; Gard. Chron., 1889,
 vi., 688, f. 95 (leaf structure). China.
Abies Fortunei, *A. Murr.*; Gard. Chron., 1884, xxi., 348,
 ff. 64-7; 1886, xxv., 428, ff. 82-3.
A. jezoensis, *Lindl.* (not *Sieb.*).
Picea Fortunei, *A. Murr.*
Pinus Fortunei, *Parl.*

K. davidiana, *Franch.*; *Beissner*, Handbuch, 425, f. 117.



SILVER FIRS.

Abies amabilis, *Forbes*; Gard. Chron., 1880, ff. 136-141; *Beissner*, Handbuch, 469, f. 128. British Columbia to Oregon.

Abies grandis, *A. Murr.* (not *Lindl.*).

A. grandis var. *densiflora*, *Engelm.*

Picea amabilis, *Loud.*

Pinus amabilis, *Dougl.*

P. grandis, *Lamb.* (not *Dougl.*).

A. balsamea, *Mill.*; Gard. Chron., 1895, xvii., 423, 425, 431, ff. 57, 58, 60. N. E. America. "Balm of Gilead" or "Balsam Fir."

Abies balsamea, *Marsh.*

A. balsamifera, *Michx.*

Picea balsamea, *Loud.*

Pinus balsamea, *L.*

Var. *hudsonica*, *Sargent.*

Var. *variegata*, *Beissn.*

A. brachyphylla, *Maxim.*; Gard. Chron., 1879, xii., 556, f. 92; Bot. Mag. t. 7114. Japan.

Abies Veitchii (*of some gardens*).

Picea brachyphylla, *Gord.*

P. pinnosa, *Hort.*

P. Veitchii (*of some gardens*).

Pinus brachyphylla, *Parl.*

A. bracteata, *Nutt.*; Bot. Mag. t. 4740; Gard. Chron., 1889, v., 242, f. 44. Santa Lucia Mts., California.

A. venusta, *Sargent.*

Picea bracteata, *Loud.*; Garden, 1889, xxxv., 12, f.

Pinus bracteata, *D. Don.*

P. venusta, *Dougl.*

A. cephalonica, *Loud.*; Gard. Chron., 1884, xxii., 592, f. 105. Mountains of Greece.

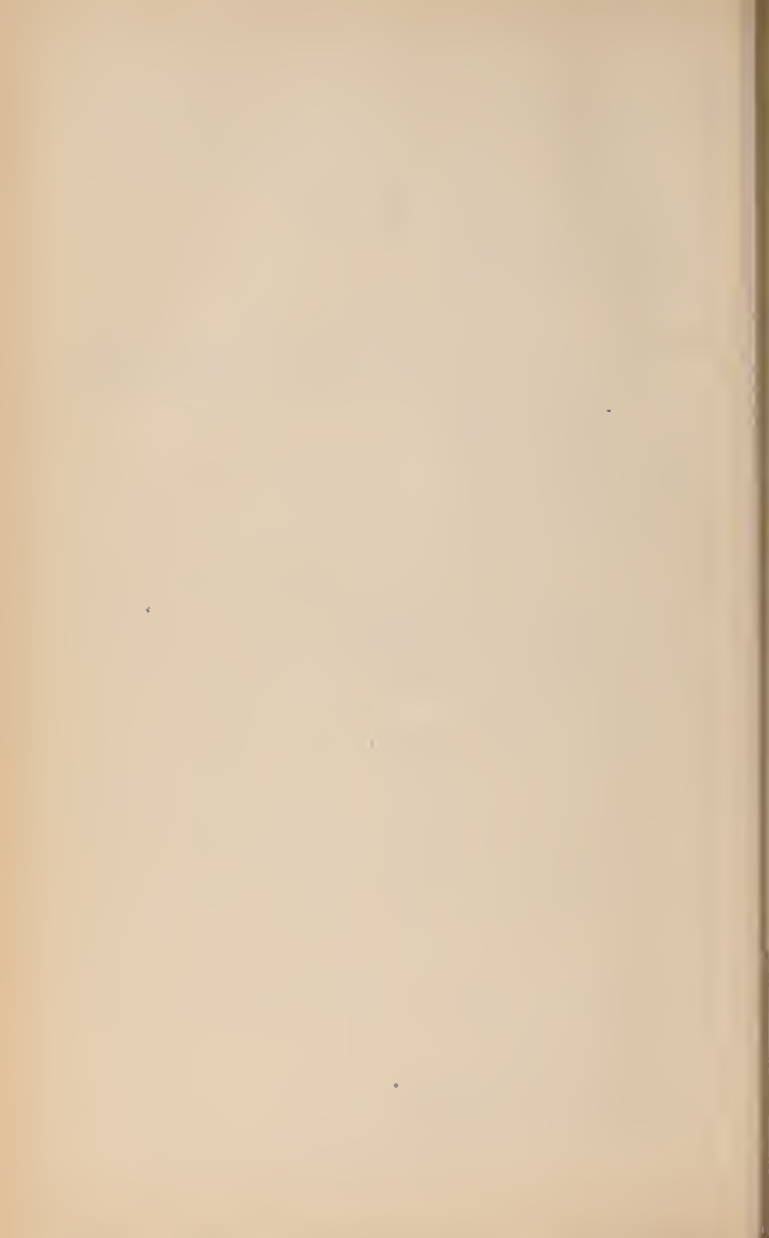
A. Apollinis, *Link.*

A. panachaica, *Heldr.*

A. Reginae-Amaliae, *Heldr.*

Picea cephalonica, *Loud.*

Pinus Abies var. *cephalonica*, *Parl.*



A. cilicica, *Carr.* Cilician Taurus.

A. Tschugatskoi, *Gord.*

Pinus cilicica, *Parl.*

A. concolor, *Lindl. & Gord.*; *Gard. Chron.*, 1890, viii., 748, ff. 147-8. *Beissner*, *Handbuch*, 472, fig. 130.

Colorado, Utah, Arizona.

Picea concolor, *A. Murr.*

P. lasiocarpa, *Balfour* (not *Hook.*).

Pinus concolor, *Parl.*

Var. *violacea*.

A. concolor var. *violacea*.

Picea concolor var. *violacea*, *Roezl.*

A. firma, *Sieb. & Zucc.*; *Veitch*, *Manual*, p. 95, f. 16. *Beissner*, *Handbuch*, 451, f. 123. Japan.

A. bifida, *Sieb. & Zucc.*

A. holophylla, *Maxim.*

Pinus firma, *Antoine*.

A. Fraseri, *Lindl.*; *Sargent*, *Garden and Forest*, 1889, ii., 472, f. 132. Mountains of Carolina.

A. humilis, *La Pilaye*.

Picea Fraseri, *Loud.*

Pinus Fraseri, *Parl.*

A. grandis, *Lindl.*; *Veitch*, *Manual*, 98, f. 24. *Beissner*, *Handbuch*, 478, f. 133. Vancouver to California

A. amabilis, *A. Murr.*

A. gordoniana, *Carr.*

Picea grandis, *Loud.*

Pinus grandis, *Dougl.*

A. homolepis, *Sieb. & Zucc.* Japan.

A. brachyphylla, *Mayr.*

A. tschonoskiana, *Hort.*

Pinus harryana, *McNab.*

A. lasiocarpa, *Hook.* (not *Hort.*); *Gard. Chron.*, 1889, v. 172, ff. 23-32. British Columbia to Colorado.

A. (Picea) bifolia, *A. Murr.*

A. grandis, *Engelm.* (in part).

A. subalpina, *Engelm.*

A. subalpina var. *fallax*, *Engelm.*



A. lasiocarpa — *cont.*

Picea amabilis, *Gord.* (in part).

Pinus amabilis, *Parl.* (in part).

Var. *caerulescens*.

A. lowiana, *A. Murr.*; *Gard. Chron.*, 1890, viii., 750, ff. 149, 150. Sierra Nevada.

A. concolor, *Sargent* (in part).

A. grandis var. *lowiana*, *Mast.*

A. lasiocarpa, *Beissn.*

A. parsonsiana (*of some gardens*).

Picea lowiana, *Gord.*

A. magnifica, *A. Murr.*; *Beissner*, *Handbuch*, 482, f. 135. Californian Sierras.

A. campylocarpa, *A. Murr.*

Picea magnifica, *Gord.*

Pinus amabilis, *Parl.* (in part).

Var. *xanthocarpa*.

A. nobilis var. *robusta*, *Mast.* *Gard. Chron.*, 1885, xxiv., 657, f. 147.

A. shastensis, *Lemmon*.

A. Mariesii, *Mast.*; *Gard. Chron.*, 1879, xii., 788, t. 129; *Beissner*, *Handbuch*, 455, f. 124. Mountains of Japan.

A. nobilis, *Lindl.*; *Veitch*, *Manual*, 101, f. Oregon, California.

A. magnifica, *Engelm.* (in part).

Picea nobilis, *Loud.*

Pinus nobilis, *Dougl.*

Var. *glauca*.

A. nordmanniana, *Spach*; *Bot. Mag.* t. 6922. Crimea.

Picea nordmanniana, *Loud.*

Pinus Abies, *Parl.*

A. numidica, *De Lamoignon*; *Gard. Chron.*, 1888, iii., 140, f. 23. Algerian mountains.

A. Pinsapo var. *baborensis*, *Cosson*.

Picea numidica, *R. Smith*.

Pinus Pinsapo, *Parl.* (not *Boiss.*).



- A. pectinata*, *DC.* (1805); *Beissner*, Handbuch, 430, f. 119.
Mountains of Central and Southern Europe. "Silver Fir."
- A. alba*, *Mill.* (1768).
A. excelsa, *Salisb.* (1805).
A. Picea, *Lindl.*
A. taxifolia, *Desf.* (1809).
A. vulgaris, *Poir.* (1804).
Picea pectinata, *Loud.*
Pinus Abies, *Duroi* (1771).
P. pectinata, *Lam.* (1778).
P. Picea, *L.* (1753).
- A. Pinsapo*, *Boiss.*; Gard. Chron., 1885, xxiv., 468, f. 99;
xxvi., 9, f. 1.; 1888, iii., 140, f. 22 (section of leaf).
Mountains of Southern Spain.
- A. sachalinensis*, *Mast.* Gard. Chron., 1879, xii., 588, f. 97.
Sachalin, Yesso.
A. Veitchii var. *sachalinensis*, *Schmidt*; *Beissner*, Hand-
buch, 461, f. 127.
- A. sibirica*, *Ledeb.*; *Beissner*, Handbuch, 455; *Veitch*,
Manual, 111. North and East Russia.
A. Pichta, *Forbes.*
Picea Pichta, *Loud.*
- A. Veitchii*, *Lindl.* Gard. Chron., 1880, xiii., 273, f. 50.
Beissner, Handbuch, 459, f. 125. Mountains of Japan.
Abies Eichleri, *Lauche.*
A. nephrolepis, *Maxim.*
Picea Veitchii, *Hort.*
Pinus sclenolepis, *Parl.*
- A. webbiana*, *Lindl.*; Gard. Chron., 1884, xxii., 467, f. 86;
Veitch, Manual, 109, f. ; *Beissner*, Handbuch, 480,
f. 134. Himalaya.
Abies chilensis, *Hort.*
A. chilrowensis, *Hort.*
Picea webbiana, *Loud.*
- Var. *Pindrow*, *Brandis*; *Loud. Encycl.*, 1052, f. 1970.
North-western Himalaya.
Picea Pindrow, *Loud.*
Pinus Pindrow, *Royle.*



Pseudotsuga Douglasii, Carr.; *Beissner*, Handbuch, 413, f. 115. N. W. America. "The Douglas Fir."

P. taxifolia, Britton.

Abies Douglasii, Lindl.; *Veitch*, Manual, p. 120, f. 35.

A. mucronata, Rafin.

A. taxifolia, Poir.

Picea Douglasii, Link.

Pinus Douglasii, Sabine.

P. taxifolia, Lamb.

Tsuga Douglasii, Carr.

Var. *brevifolia*.

Var. *elegans*.

Var. *glauca*.

Var. *pendula*.

Var. *revoluta*.

Var. *Stairii*.

Var. *taxifolia*.

Var. *variegata*.

Sub-tribe IV.—PINEÆ. "Pines."

† PINASTER.

Pinus albicaulis, Engelm. North-West America.

P. cembroides, Newb. (not Zucc.).

P. flexilis, A. Murr. (in part).

P. flexilis var. *albicaulis*, Engelm.

P. Shasta, Carr.

P. balfouriana, A. Murr. California.

Var. *aristata*, Engelm.

P. banksiana, Lamb. North-Eastern United States and Eastern Rocky Mountains.

P. hudsonica, Poir.

P. bungeana, Zucc.; Gard. Chron., 1882, xvii., 8, f. 2. North China.

P. excorticata, Lindl. & Gord.



- **P. canariensis*, *C. Sm. ; Mast.* Gard. Chron., 1888, iii., 723, f. 94. Canaries.
- P. cembroides*, *Zucc.* Arizona.
P. llaveana, *Schiede & Deppe.*
P. osteosperma, *Engelm.*
- P. contorta*, *Dougl.* ; Gard. Chron., 1883, xix., 45, f. 5. North-West America, near the coast.
P. Bolanderi, *Parl.*
P. Boursieri, *Carr.*
P. inops, *Bong.*
P. mac-intoshiana, *Lawson.*
- Var. *murrayana*. Californian valleys.
P. contorta var. *latifolia*, *Hort.*
P. murrayana, *Lemmon.*
- P. Coulteri*, *D. Don.* ; Gard. Chron., 1885, xxiii., 415, ff. 73, 74 ; Tree at Kew, 1888, iv., 765, f. 109. California.
P. macrocarpa, *Lindl.*
- P. densiflora*, *Sieb. & Zucc.* Fl. Jap., ii., 22, t. 112. Japan.
P. massoniana, *Hort.* (in part).
P. tabuliformis, *Hort.*
- Var. *aureo-variegata*.
 Var. *argenteo-variegata*.
- P. edulis*, *Engelm.* New Mexico.
P. cembroides, *Gord.* (not *Zucc.*).
- **P. filifolia*, *Lindl.* ; *Loud.* Encycl., 1008, ff. 1889, 1890. Guatemala.
- P. gerardiana*, *Wall.* North-Western Himalaya, Afghanistan.
- P. halepensis*, *Mill.* ; Gard. Chron., 1884, xxii., 553, f. 97 ; 1888, iii., 629, f. 84. Mediterranean Region. "The Jerusalem Pine."
P. abchasica, *Fisch.*
P. maritima, *Lamb.*
P. persica, *Hort.*
P. Pithyusa, *Strangw.*
- Var. *prolifera*.



- P. inops*, *Soland.* (1789). North-Eastern United States.
P. virginiana, *Mill.* (1768).
P. variabilis, *Lamb.*
- P. insignis*, *Dougl.*; *Gard. Chron.*, 1878, ix., 108, ff. 22, 23.
 California. "The Monterey Pine."
P. radiata, *D. Don.*
P. tuberculata, *D. Don.* (not *Gord.*).
- P. Jeffreyi*, *A. Murr.*; *Gard. Chron.*, 1889, v., 361, f. 65.
 California.
- Var. *deflexa*, *Torr.*
- P. Laricio*, *Poir.*; *Gard. Chron.*, 1884, xxi., 15, f. 1; (Tree at
 Kew), 1888, iv., 693, f. 97. *Beissner*, *Handbuch*, 239,
 f. 59. South Europe, Levant. "The Corsican Pine."
P. Laricio var. *latisquama*, *Willk.*
P. Laricio var. *poiretiana*, *Antoine.*
P. maritima, *Ait.*

The varieties of this species are extremely numerous and their identification and synonymy proportionately uncertain. The following forms may be roughly thrown under the following varieties, but they are not to be considered as strictly synonymous.

- Var. *nigricans*, *Parl.*
- P. austriaca*, *Hoess.*
 - P. calabrica*, *Delamarre.*
 - P. dalmatica*, *Vis.*
 - P. Laricio* var. *austriaca*, *Endl.*
 - P. Laricio* var. *stricta*, *Carr.*
 - P. leucodermis*, *Antoine.*
 - P. magellensis*, *Guss.*
 - P. maritima*, *C. Koch.*
 - P. nigra*, *Link.*
 - P. nigricans*, *Hoess.*
 - P. Pinaster*, *Bess.*
 - P. romana*, *Hort.*
 - P. sylvestris*, *Baumg.*
 - P. taurica*, *Hort.*

- Var. *pallasiana*.
P. caramanica, *Bosc.*



P. Laricio--cont.*P. Fenzlii*, *Antoine*.*P. halepensis*, *Bieb.* (not *Mill.*).*P. karamana*, *Mast.* Gard. Chron., 1884, xxi., 480, f. 91.*P. maritima*, *Pall.**P. neglecta*, *Hort.**P. pallasiana*, *Lamb.**P. Pinea*, *Habl.*Var. *tenuifolia*, *Parl.**P. Laricio* var. *angustisquama*, *Willk.**P. Laricio* var. *cebennensis*, *Gren. & Godr.**P. Laricio* var. *leptophylla*, *Christ.**P. pyrenaica*, *Lapeyr.* (in part).*P. Salzmanni*, *Dun.*

The following are garden varieties :—

Var. *aureo-variegata*.Var. *pendula*.Var. *pumila*.Var. *pygmaea*.Var. *variegata*.**P. longifolia*, *Roxb.* Himalaya.*P. mitis*, *Michx.* Eastern United States.*P. echinata*, *Mill.**P. Taeda* var. *variabilis*, *Ait.**P. variabilis*, *Pursh* (not *Lamb.*).*P. monophylla*, *Torr.* ; Gard. Chron., 1883, xx., 41, f. 8.
Sierra Nevada, Utah.*P. fremontiana*, *Endl.**P. montana*, *Duroi.* Mountains of Central and Southern Europe.Var. *uncinata*, *Mast.* Gard. Chron., 1884, xxii., 208. f. 42.
Pyrenees.*P. sanguinea*, *Lapeyr.**P. uncinata*, *Ram.*



P. montana—*cont.*Var. **Pumilio**.P. Mughus, *Wahlenb.*

P. Mughus var. Pumilio.

P. Pumilio, *Haenke*.

P. sylvestris var. Pumilio.

Var. **Pumilio variegata**.Var. **Mughus**.P. Mughus, *Scop.****P. Montezumae**, *Lamb.* var. **lindleyana**. Mexico.P. lindleyana, *Gord.* Journ. Hort. Soc., 1850, v. 215.**P. muricata**, *D. Don.*; Gard. Chron., 1884, xxi., 49, ff. 7-9.
California.P. edgariana, *Hartw.*P. radiata, *Hort.* (not *D. Don*).**P. palustris**, *Mill.* South United States.P. australis, *Michx.***P. parryana**, *Engelm.* South California.**P. Pinaster**, *Soland.* Mediterranean region.P. helenica, *Loud.*P. Laricio, *Santi.*P. Latteri, *Madden.*P. maritima, *Poir.*P. nepalensis, *Royle.*P. sylvestris var. *L.*Var. **Hamiltoni**, *Lindl. & Gord.*P. Hamiltoni, *Tekore.***P. Pinea**, *L.*; Gard. Chron., 1888, iv., 604, ff. 84-5. Mediter-
ranean region. "The Stone or Umbrella Pine."**P. ponderosa**, *Dougl.*; Gard. Chron., 1890, viii., 557., ff. 110-
115. British Columbia to Texas.P. Beardsleyi, *A. Murr.*P. benthamiana, *Hartw.*P. brachyptera, *Engelm.*P. craigiana, *A. Murr.*



P. ponderosa—*cont.**P. Engelmanni*, *Torr.**P. parryana*, *Gord.* (not *Engelm.*).Var. *pendula*, *Sargent.*Var. *Scopulorum*, *Engelm.**P. pungens*, *Michx.*; *Beissner*, *Handbuch*, 214, f. 56. East
Central United States.*P. pyrenaica*, *Lapeyr.*; *Gard. Chron.*, 1888, iv., 267, f. 32.
South Europe, Levant.*P. Brutia*, *Tenore.**P. loiseleuriana*, *Carr.**P. paroliniana*, *Webb.**P. resinosa*, *Soland.* North-Eastern America.*P. rubra*, *Michx.**P. rigida*, *Mill.*; *Beissner*, *Handbuch*, 268, f. 64. Eastern
United States.*P. Loddigesii*, *Loud.**P. sabiniana*, *Dougl.*; *Gard. Chron.*, 1888, iv., 44, f. 4;
Tree at Kew, 1889, v., 45, f. 6. California.*P. serotina*, *Michx.* North Carolina to Florida.*P. Taeda* var. *alopencuroidea*, *Loud.**P. rigida* var. *serotina*, *Loud.**P. sylvestris*, *L.*; *Beissner*, *Handbuch*, 227, f. 58. Northern
Europe, Asia. Scotch Pine.*P. hagenensis*, *Loud.**P. Mughus*, *Jacq.**P. rigensis*, *Desf.**P. rubra*, *Mill.**P. sylvestris* var. *genuina*, *Heer*Var. *altaica*.Var. *argentea*, *Steven.*Var. *aurea*.Var. *fastigiata*, *Carr.*Var. *globosa*.Var. *nana*.Var. *pumila*.Var. *variegata*.



P. Taeda, *L.* South-eastern United States.

P. Thunbergii, *Parl.* Japan.

P. massoniana, *Sieb. & Zucc.* (not *Lamb.*).

P. Pinaster, *Loud.* (in part).

P. rubra, *Sieb.*

P. sylvestris, *Thunb.* (not *L.*).

Var. *aurea*.

Var. *variegata*.

P. tuberculata, *Gord.* (not *D. Don*). Oregon.

P. attenuata, *Lemmon*.

P. californica, *Hartw.* (not *Loisel.*).

†† STROBUS.

P. Ayacahuite, *Ehrenb.* Mexico.

P. Buonaparteae, *Roezl.*

P. colorado, *Roezl.*

P. Don Pedri, *Roezl.*

P. durangensis, *Roezl.*

P. hamata, *Roezl.*

P. loudoniana, *Gord.*

P. Popocatepetlii, *Roezl.*

P. Veitchii, *Roezl.*

P. Cembra, *L.* ; Gard. Chron., 1872, 397 ; *Beissner*, Handbuch, 276, f. 65. Mountains of Central Europe ; Siberia.
"The Stone Pine."

Var. *aurea*.

Var. *pumila*, *Pall.* Fl. Ross. 5, t. 2.

P. excelsa, *Wall.* ; Gard. Chron., 1883, xix., 249, f. 35.
Temperate Himalaya. "The Bhotan Pine."

P. flexilis, *James* ; Gard. Chron., 1875, iv., 356, f. 75. Eastern
Rocky Mountains to Texas, &c.

P. koraiensis, *Sieb. & Zucc.* ; *Beissner*, Handbuch, 281, f. 68,
Veitch, Manual, 178, f. 40. Korea, Japan.

P. lambertiana, *Dougl.* ; Gard. Chron., 1885, xxiii., 11 :
1887, i., 769, f. 144. California, Oregon. "The Sugar
Pine."



- P. monticola*, *Dougl.* ; *Veitch*, Manual, 181, f. 41. Vancouver's Island, California.
- P. parviflora*, *Sieb. & Zucc.* ; Gard. Chron., 1878, x., 624, f. 103. Japan.
- P. Peuke*, *Griseb.* ; Gard. Chron., 1883, xix., 244, ff. 33, 34. Macedonia.
- P. excelsa*, *Hook.* (not *Wall.*).
- P. excelsa* var. *Peuke*, *Beissner*.
- P. Strobis*, *L.* ; *Beissner*, Handbuch, 290, f. 72. Canada, North-Eastern America. "The Weymouth Pine."
- Var. *compacta*.
- Var. *densa*.
- Var. *fastigiata*.
- Var. *nana*.
- P. Strobis* var. *pygmaea*, *Hort.*
- Var. *nivea*.
- Var. *prostrata*.
-



INDEX.

Abies *acicularis*, *Hort.*, 65.
ajanensis, *Veitch*, 71.
alba, *Chapm.*, 69.
alba, *Michx.*, 65.
alba, *Mill.*, 85.
alba, *Torr.*, 65.
alba var. *caerulea*, *Carr.*, 65.
albertiana, *A. Murr.*, 63.
alcockiana, *Hort.* (in part), 73.
alcockiana, *Veitch*, 65.
amabilis, *A. Murr.*, 81.
amabilis, *Forbes*, 79.
americana, *C. Koch*, 69.
americana, *Marsh.*, 63.
Apollinis, *Link*, 79.
Araragi, *Loud.*, 63.
arctica, *Hort.*, 69.
arctica, *Seem.*, 65.
atlantica, *Lindl. & Gord.*, 73.
balsamea, *Mill.*, and varieties, 79.
balsamea, *Marsh.*, 79.
balsamifera, *Michx.*, 79.
bicolor, *Maxim.*, 65.
bifida, *Sieb. & Zucc.*, 81.
bifolia, *A. Murr.*, 81.
brachyphylla, *Maxim.*, 79.
brachyphylla, *Mayr*, 81.
bracteata, *Nutt.*, 79.
Bridgesii, *Kellogg*, 63.
brunoniana, *Lindl.*, 61.
caerulea, *Forbes*, 65.
campylocarpa, *A. Murr.*, 83.
canadensis, *Mill.*, 65.
canadensis, *Michx.*, 63.
caroliniana, *Chapm.*, 63.
Cedrus, *Poir.*, 75.
cephalonica, *Loud.*, 79.

Abies *chiloensis*, *Hort.*, 85.
chilrowensis, *Hort.*, 85.
cilicica, *Carr.*, 81.
concolor, *Lindl. & Gord.*
 and variety, 81.
concolor, *Sarg.* (partly), 83.
curvifolia, *Salisb.*, 63.
denticulata, *Michx.*, 69.
Deodara, *Lindl.*, 75.
Douglasii, *Lindl.*, 87.
dumosa, *Loud.*, 63.
Eichleri, *Lauche*, 85.
Engelmanni, *Hort.*, 71.
Engelmanni, *Parry*, 65.
excelsa, *DC.*, 65.
excelsa, *Salisb.*, 85.
excelsa acicularis, *Hort.*, 65.
firma, *Sieb. & Zucc.*, 81.
Fortunei, *A. Murr.*, 77.
Fraseri, *Lindl.*, 81.
gordoniana, *Carr.*, 81.
grandis, *A. Murr.*, 79.
grandis, *Lindl.*, 81.
grandis, *Engelm.* (partly), 81.
grandis var. *densiflora*,
 Engelm., 79.
grandis var. *lowiana*, *Mast.*,
 83.
griffithiana, *Lindl. & Gord.*,
 77.
holophylla, *Maxim.*, 81.
homolepis, *Sieb. & Zucc.*, 81.
hookeriana, *A. Murr.*, 63.
humilis, *La Pilaye*, 81.
jezoensis, *Lindl.*, 77.
Kaempferi, *Lindl.*, 77.
Khutrow, *Loud.*, 69.
Larix, *Lam.*, 75.

Abies lasiocarpa, *Beissn.*, 83.
lasiocarpa, *Hook.*, and variety, 81.
laxa, *C. Koch*, 65.
leptolepis, *Sieb. & Zucc.*, 77.
lowiana, *A. Murr.*, 83.
magnifica, *Engelm.* (partly), 83.
magnifica, *A. Murr.*, and variety, 83.
Mariana, *Mill.*, 69.
Mariesii, *Mast.*, 83.
marylandica, *Hort.*, 69.
Maximowiczii, *Hort.*, 69.
Monziesii, *Engelm.* (in part), 71.
Monziesii, *Lond.*, 73.
mortensiana, *Lindl. & Gord.*, 63.
microcarpa, *Lindl. & Gord.*, 77.
mucronata, *Rafin.*, 87.
nephrolepis, *Maxim.*, 85.
nigra, *Engelm.*, 65.
nigra, *Poir.*, 69.
nigra var. *rubra*, *Michx.*, 71.
nobilis, *Lindl.*, and variety, 83.
nobilis var. *robusta*, *Mast.*, 83.
nordmanniana, *Spach*, 83.
numidica, *De Lannoy*, 83.
obovata, *Loud.*, 69.
orientalis, *Poir.*, 71.
panachaica, *Heldr.*, 79.
Parlatorei, *Hort.*, 71.
parsonsiana, *Hort. aliq.*, 83.
pattoniana, *Jeffrey*, 63.
pattoniana, *McNab*, 63.
pectinata, *DC.*, 85.
pendula, *Lindl. & Gord.*, 77.
Picea, *Lindl.*, 85.
Picea, *Mill.*, 67.
Picea, *Forbes*, 85.

Abies Pinsapo, *Boiss.*, 85.
Pinsapo var. *barborensis*, *Coss.*, 83.
polita, *Sieb. & Zucc.*, 71.
Reginae-Amaliae, *Heldr.*, 79.
rubra, *Banhin*, 67.
rubra, *Poir.*, 71.
rubra var. *arctica*, *Lindl. & Gord.*, 71.
rubra var. *cacrulea*, *Loud.*, 65.
sachalinensis, *Mast.*, 85.
shastensis, *Lemmon*, 83.
sibirica, *Ledeb.*, 85.
sitchensis, *C. Koch*, 73.
sitchensis, *Lindl. & Gord.*, 73.
smithiana, *Forbes*, 69.
subalpina, *Engelm.*, and variety, 81.
taxifolia, *Poir.*, 87.
taxifolia, *Desf.*, 85.
Torano, *Sieb.*, 71.
Tsuga, *Veitch*, 63.
Tschugatskoi, *Gord.*, 81.
tschonoskiana, *Hort.*, 81.
Veitchii, *Lindl.*, 85.
Veitchii, *Hort. aliq.*, 79.
Veitchii var. *sachalinensis*, *Schmidt*, 85.
venusta, *Sargent*, 79.
vulgaris, *Poir.*, 85.
webbiana, *Lindl.*, and variety, 85.
Williamsoni, *Newb.*, 63.
wittmanniana, *Hort.*, 71.
Abietineæ, 61.
Actinostrobus pyramidalis, *Miq.*, 35.
Agathis australis, *Salisb.*, 59.
loranthifolia, *Salisb.*, 59.
Moorei, *Mast.*, 59.
obtusa, *Mast.*, 61.
robusta, *Mast.*, 61.
vitiensis, *Mast.*, 61.

Arceuthos, 35.

drupacea, *Antoine*, 35.

Araucarineæ, 59.

Araucaria Balansae, *Brongn. & Gris.*, 61.

Bidwellii, *Hook.*, 61.

brasiliانا, *Rich.*, 61.

brasiliensis, *Loud.*, 61.

columnaris, *Hook.*, 61.

Cookii, *R. Br.*, 61.

Cunninghamii, *Aiton*, and variety, 61.

excelsa, *R. Br.*, and varieties, 61.

glauca, *Antoine*, 61.

goldieana, *T. Moore*, 61.

imbricata, *Pav.*, and variety, 61.

Athrotaxis cupressoides, *D. Don*, 57.

doniana, *Hort.*, 57.

gunniana, *Hort.*, 57.

laxifolia, *Hook.*, 57.

selaginoides, *D. Don*, 57.

Belis jaculiflora, *Salisb.*, 59.

Biota, 51.

Biota elegantissima, *Hort.*, 53.

intermedia, *Hort.*, 53.

japonica, *Sieb.*, 53.

meldensis, *Gord.*, 55.

orientalis, *Endl.*, 51.

orientalis aurea nana, *Hort.*, 51.

orientalis densa glauca, *Hort.*, 53.

orientalis minima glauca, *Hort.*, 55.

orientalis semperaurea, *Hort.*, 55.

orientalis var. argentea, *Gord.*, 51.

orientalis var. decussata, *Beissn. & Hochst.*, 53.

Biota orientalis var. expansa, *Endl.*, 55.

orientalis var. intermedia, *Carr.*, 53.

orientalis var. nana, *Carr.*, 53.

orientalis var. pendula, *Parl.*, 55.

orientalis var. Sieboldi, *Endl.*, 53.

orientalis var. tatarica, *Endl.*, 55.

orientalis var. variegata, *Endl.*, 51.

orientalis var. variegata, *Gord.*, 51.

pendula, *Endl.*, 55.

pendula, *Endl.*, var., 53.

pendula, var. *recurvata*, *Gordl.*, 55.

tatarica, *Lindl.*, 55.

zuccariniana, *Sieb.*, 53.

Callitrinae, 35.

Callitris calcarata, *R. Br.*, 35.

cupressoides, *Schrad.*, 35.

Parlatorei, *F. Muell.*, 35.

quadrivalvis, *Rich.*, 35.

robusta, *R. Br.* and variety, 35.

verrucosa, *R. Br.*, 35.

Cedrus africana, *Gord.*, 73.

atlantica, *Manetti*, and varieties, 73.

Deodara, *Loud.*, and varieties, 73-75.

indica, *Chambr.*, 73.

Libani, *Loud.*, and variety, 75.

Libani, var. *Deodora*, *Hook. f.*, 75.

patula, *C. Koch*, 75.

Cephalotaxus drupacea, *Sieb. & Zucc.*, 19.

Fortuni, *Hook.*, and varieties, 19.

Mannii, *Hook. f.*, 19.

Cephalotaxus pedunculata,
Sieb. & Zucc., and variety, 19.

Chamaecyparis, 41.

Boursieri, Carr., 41.

Boursieri, Decne., 29.

decussata, Hort., 53.

lawsoniana, Parl., 41.

nutkaensis, Spach, 43.

obtusa, Sieb. & Zucc., and
variety, 45.

pisifera, Sieb. & Zucc., 45.

sphaeroidea, Spach, 47.

Coniferae, 27.

Cunninghamia sinensis, R. Br.,
59.

Cupressiueae, 27.

Cupressus amoena, C. Koch, 37.

Arbor-vitae, Targ. Tozz., 47.

arizonica, Greene, 37.

aromatica, Gord., 37.

australis, Low, 39.

Benthami, Endl., and variety,
37.

californica, Carr., 37.

conoidea, Spad., 39.

corneyana, Gord., 39.

Coulteri, Forbes, 37.

disticha, L., 59.

doniana, Hort., 39.

elegans, Hort., 37.

Ehrenbergii, Kunze, 37.

excelsa, Scott, 37.

fastigiata, DC., 39.

filiformis, Hort., 55.

funnebris, Endl., and variety,
37.

glandulosa, Hook., 39.

glauca, Lam., 37.

goweniana, Gord., 37.

Hugeli, Hort., 37.

lawsoniana, A. Murr., and
varieties, 41.

japonica, L. f., 59.

Cupressus karwinskyana, Regel, 37.
kashmiriana, Hort., 37.

guadeloupensis, S. Wats., 39.

Hartwegii, Carr., 39.

horizontalis, Mill., 39.

lambertiana, Gord., 39.

lusitanica, Carr., 37.

lusitanica, Mill., 37.

macnabiana, A. Murr., 39.

macrocarpa, Hartw., and
varieties, 39.

obtusa, C. Koch, and varieties,
45.

patula, Pers., 55.

patula, Spad., 39.

pendula, Abet, 37.

pendula, L'Herit., 37.

pendula, Thunb., 55.

pendulata, Hort., 55.

pisifera, C. Koch, and
varieties, 45.

pyramidalis, Targ. Tozz., 39.

Roylei, Carr., 39.

sempervirens, L., and varie-
ties, 39.

Skinneri, Hort., 37.

thurifera, Schlecht., 37.

thyoides, L., and varieties, 47.

Thuya, Targ. Tozz., 51.

torulosa, D. Don., and varie-
ties, 39.

Tournefortii, Audub., 39.

uhdeana, Gord., 37.

uhdeana, Hort., 37.

whitleyana, Hort., 39.

Cryptomeris Fortunei, Otto &
Dietr., 59.

japonica, D. Don., and
varieties, 59.

Veitchii, Hort., 59.

Dacrydium araucarioides,
Broun. & Gris., 23.

cupressinum, Soland., 23.

Dacrydium elatum, *Wall.*, 23.
Franklini, *Hook. f.*, 23.
Pancheri, *Brogn. & Gris.* 25.

Dammara australis, *Lamb.*, 59.
Moorii, *Lindl.*, 59.
obtusata, *Lindl.*, 61.
robusta, *C. Moore*, 61.
vitiensis, *Seem.*, 61.

Disclma Archeri, *Hook. f.*, 37.
Eucupressus, 37.
Enthuya, 47.

Fitzroya Archeri, *Benth. & Hook. f.*, 37.
patagonica, *Hook. f.*, 37.

Frenela Endlicheri, *Parl.*, 35.
Fontanesii, *Mirbel*, 35.
glauca, *Hort.*, 53.
Parlatorei, *F. Muell.*, 35.
robusta, *A. Cunn.*, 35.

Ginkgo biloba, *L.*, and varieties, 19.

Glyptostrobus heterophyllus, *Endl.*, 59.
pendulus, *Endl.*, 59.

Hesperopeuke pattoniana, *Lemmon*, 63.

Heyderia decurrens, *C. Koch.*, 57.

Juniperinæ, 27.

Juniperus alpina, *S. F. Gray*, 33.
bacciformis, *Carr.*, 29.
bermudiana, *L.*, 27.
biebersteiniana, *C. Koch*, 35.
bonatiana, *Vis.*, 31.
Cabiancae, *Vis.*, 27.
californica, *Carr.*, 27.
canadensis, *Lodd.*, 33.
canadensis aurea, *Hort.*, 27.
Cedrus, *Webb*, 33.
chinensis, *L.*, and varieties, 27.
chinensis. var. Smithii, *Loud.*, 31.
cinerea, *Carr.*, 31.

Juniperus communis, *L.*, and varieties, 33.
conferta, *Parl.*, 33.
dealbata, *Hort. aliq.*, 29.
densa, *Gord.*, 29.
densata, *Gord.*, 27.
drupacea, *Labill.*, 35.
excelsa, *Bieb.*, and varieties, 27.
excelsa, *Bieb.*, var. **nana**, *Endl.*, 29.
excelsa, *Brandis*, 29.
excelsa, *Willd.*, 29.
flaccida, *Schlecht.*, 29.
flagelliformis, *Hort.*, 27.
foetida var. thurifera, *Spach*, 31.
Fortunei, *Van Houtte*, 31.
glauca, *Hort.*, 53.
gossainthaneana, *Lodd.*, 29.
hemisphaerica, *Presl*, 33.
henryana, *R. Br. Campst.*, 33.
hibernica, *Gord.*, 33.
hispanica, *Booth. ex Endl.*, 33.
hispanica, *Lam.*, 31.
hudsonica, *Lodd.*, 31.
japonica, *Carr.*, 27.
japonica, *Carr.*, var. **aurea**, *Hort.*, 27.
jacobiana, *Hort. Jakob-Makoy*, 27.
litoralis, *Maxim.*, 33.
Lycia, *L.*, 29.
Lycia, *Pall.*, 29.
macrocarpa, *Sibth.*, 33.
macropoda, *Boiss.*, 29.
mexicana, *Schiede*, 29.
nana, *Willd.*, 33.
nana var. **hemisphaerica**, *Carr.*, 33.
neaboriensis, *Hort.*, 33.
oblonga, *Bieb.*, 33.
oblonga, *Gord.*, 33.
oblonga pendula, 35.

Juniperus occidentalis, *Hook.*,
and varieties, 29.

oophora, *Kunze*, 29.

Oxycedrus, *L. Herb.*, 33.

Oxycedrus, *L.*, 35.

pachyphlaea, *Torr.*, 29.

phoenicea, *L.*, and variety, 29.

procera, *Hochst.*, 29.

prostrata, *Pers.*, 31.

pseudo - Sabina, *Fisch. & Mey.*, 29.

pyriformis, *Lindl.*, 29.

recurva, *Buch. - Ham.*, and
varieties, 29.

reevesiana, *Hort.*, 27.

religiosa, *Royle*, 29.

repens, *Nutt.*, 31.

rigida, *Sieb. & Zucc.*, 35.

rufescens, *Hort. Edinb.*, 35.

rufescens, *Link*, 35.

sabinoides, *Endl.*, 31.

Sabina, *L.*, and varieties, 29,
31.

Sheppardi, *Hort.*, 31.

Sheppardi, *Hort.*, 31.

sphaerocarpa, *Antoine*, 33.

sphaerica, *Lindl.*, and
variety, 31.

struthiacea, *Knight & Perry*, 27.

squamata, *Buch.-Ham.*, 29.

squamata, *Hort. Edinb.*, 27.

suecica, *Milt.*, 33.

taxifolia, *Hook. & Arn.*, 35.

tenella, *Antoine*, 35.

tetragona, *Moench*, 29.

tetragona, *Schlecht.*, 31.

Thunbergii, *Hook. & Arn.*, 27.

thurifera, *L.*, 31.

umbilicata, *Gren. & Godr.*, 33.

virginiana, *L.*, and varieties,
31, 33.

Willkommii, *Antoine*, 33.

Keteleeria davidiana, *Franch.*,
77.

Fortunei, *Carr.*, 77.

Larches, 75.

Laricæ, 73.

Larix archangelica, *Hort.*, 75.

americana, *Michx.*, 77.

americana, var. *rubra*, *Loud.*,
77.

Cedrus, *Mill.*, 75.

davurica, *Trautv.*, 75.

dahurica, *Turcz.*, 75.

decidua, *Mill.*, 75.

Deodara, *C. Koch.*, 75.

europaea, *DC.*, and varieties,
75.

excelsa, *Link.*, 75.

Griffithii, *Hook. f.*, 77.

japonica, *Carr.*, 77.

Kaempferi, *Carr.*, 77.

leptolepis, *Endl.*, 77.

microcarpa, *Forbes*, 77.

occidentalis, *Nutt.*, 77.

patula, *Salisb.*, 75.

pendula, *Salisb.*, 77.

pyramidalis, *Salisb.*, 75.

vulgaris, *Fisch.*, 75.

Libocedrus chilensis, *Endl.*, 55.

decurrens, *Torr.*, 55.

doniana, *Endl.*, 57.

Macrothuya, 49.

Microcachrys tetragona, *Hook.*
f., 25.

Oxycedrus, 33.

Omorica, 71.

Phyllocladus rhomboidalis,
Rich., 21.

Picea ajanensis, *Fisch.*, and
variety, 71.

ajanensis var. *japonica*, 73.

alba, *Link.*, and variety, 65.

alcockiana, *Carr.*, 65.

amabilis, *Gord.* (partly), 83.

Picea amabilis, *Loud.*, 79.
annesleyana, *Hort.*, 71.
balsamea, *Loud.*, 79.
brachyphylla, *Gord.*, 79.
bracteata, *Loud.*, 79.
caerulea, *Link.*, 65.
canadensis, *Link.*, 63.
cephalonica, *Loud.*, 79.
commutata, *Hort. aliq.*, 71.
concolor, *A. Murr.*, 81.
concolor var. *violacea*, *Roezl.*, 81.
Douglasii, *Link.*, 87.
Engelmanni, *Engelm.*, and variety, 65.
Engelmanni, *Hort.*, 71.
ericoides, *Hort.*, 65.
excelsa, *Link.*, 65.
Fortunei, *A. Murr.*, 77.
Fraseri, *Loud.*, 81.
Glehni, *F. Schmidt*, 69.
grandis, *Loud.*, 81.
hondoensis, *Mayr*, 73.
jezoensis, *Maxim.*, 73.
lasiocarpa, *Balf.*, 81.
lowiana, *Gord.*, 83.
magnifica, *Gord.*, 83.
Maximowiczii, *Regel.*, 69.
Menziesii, *Carr.*, 73.
Menziesii, *Hort.*, 71.
Menziesii, *Parl.*, 73.
Morinda, *Link.*, 69.
nigra, *Link.*, and varieties, 69.
nigra var. *glauca*, *Carr.*, 65.
nigra var. *rubra*, *Engelm.*, 71.
nobilis, *Loud.*, 83.
nordmanniana, *Loud.*, 83.
numidica, *R. Smith*, 83.
obovata, *Ledeb.*, and varieties, 69.
obovata var. *japouica*, *Maxim.*, 69.
Omórica, *Mast.*, 73.

Picea orientalis, *Carr.*, and varieties, 71.
parryana, *Hort.*, 71.
parryana glauca, *Hort.*, 71.
pectinata, *Loud.*, 85.
Pichta, *Loud.*, 85.
Pindrow, *Loud.*, 85.
pinnosa, *Hort.*, 79.
polita, *Carr.*, 71.
pungens, *Engelm.*, and varieties, 71.
pungens argentea, *Hort.*, 71.
rubra, *Link.*, 71.
sitchensis, *Trautv. & Mey.*, 73.
sitkaensis, *Mayr*, 73.
smithiana, *Boiss.*, 69.
Veitchii, *Hort.*, 85.
Veitchii, *Hort. aliq.*, 79.
vulgaris, *Link.*, 67.
webbiana, *Loud.*, 85.
Pinus abchasica, *Fisch.*, 89.
Abies, *Duroi*, 85.
Abies, *L.*, 67.
Abies, *Parl.*, 83.
Abies var. *cephalonica*, *Parl.*, 79.
alba, *Lamb.*, 65.
albicaulis, *Engelm.*, 87.
alcockiana, *Parl.*, 65.
amabilis, *Dougl.*, 79.
amabilis, *Parl.* (partly), 83.
americana, *Duroi*, 63.
americana, *Gaertn.*, 71.
americana, var. *rubra*, *Wangenh.*, 71.
Araragi, *Sieb.*, 63.
attenuata, *Lemmon*, 99.
australis, *Michx.*, 95.
austriaca, *Hoess*, 91.
Ayacahuite, *Ehrenb.*, 99.
balfouriana, *A. Murr.*, and variety, 87.

Pinus balsamea, *L.*, 79.

banksiana, *Lamb.*, 87.

Beardsleyi, *A. Murr.*, 95.

benthamiana, *Hartw.*, 95.

Bolanderi, *Parl.*, 89.

Boursieri, *Carr.*, 89.

bracteata, *D. Don*, 79.

brachyphylla, *Parl.*, 79.

brachyptera, *Engelm.*, 95.

brunoniana, *Wall.*, 63.

Brutia, *Tenore*, 97.

bungeana, *Zucc.*, 87.

Buonapartei, *Roezl.*, 99.

calabrica, *Delamarre*, 91.

californica, *Hartw.*, 99.

canadensis, *Bong.*, 63.

canadensis, *Duroi*, 65.

canadensis, *L.*, 63.

canariensis, *C. Sm.*, 89.

caramanica, *Bosc*, 91.

Cedrus, *L.*, 75.

Cedrus var. *atlantica*, *Parl.*,
73.

Cembra, *L.*, and varieties, 99.

cembroides, *Gord.*, 89.

cembroides, *Ncw.*, 87.

cembroides, *Zucc.*, 89.

cilicica, *Parl.*, 81.

colorado, *Roezl.*, 99.

commutata, *Parl.*, 65.

concolor, *Parl.*, 81.

contorta, *Dougl.*, and variety,
89.

contorta var. *latifolia*, *Hort.*,
89.

Coulteri, *D. Don*, 89.

craigiana, *A. Murr.*, 95.

dalmatica, *Vis.*, 91.

densiflora, *Sieb. & Zucc.*, and
varieties, 89.

Deodara, *Rorb.*, 75.

Don Pedri, *Roezl.*, 99.

Douglasii, *Sabine*, 87.

Pinus dumosa, *D. Don*, 63.

durangensis, *Roezl.*, 99.

echiuata, *Mill.*, 93.

edgariana, *Hartw.*, 95.

edulis, *Engelm.*, 89.

Engelmanni, *Engelm.*, 65.

Engelmanni, *Torr.*, 97.

excelsa, *Hook.*, 100.

excelsa, *Lam.*, 67.

excelsa, *Wall.*, 99.

excelsa var. *Peuke*, *Beissn.*,
100.

excorticata, *Lindl. & Gord.*,
87.

Fenzlii, *Antoine*, 93.

filifolia, *Lindl.*, 89.

firma, *Antoine*, 81.

flexilis, *A. Murr.* (partly), 87.

flexilis, *James*, 99.

flexilis var. *albicaulis*, *Engelm.*

Fortunei, *Parl.*, 77.

Frascri, *Parl.*, 81.

fremontiana, *Endl.*, 93.

gerardiana, *Wall.*, 89.

glauca, *Moench*, 65.

grandis, *Dougl.*, 81.

grandis, *Lamb.*, 79.

Griffithii, *Parl.*, 77.

halepensis, *Bieb.*, 93.

halepensis, *Mill.*, and
variety, 89.

haguenensis, *Loud.*, 97.

hamata, *Roezl.*, 99.

Hamiltoni, *Tenore*, 95.

harryana, *McNab*, 81.

helenica, *Loud.*, 95.

hudsonica, *Poir.*, 87.

inops, *Bong.*, 89.

inops, *Soland.*, 91.

insignis, *Dougl.*, 91.

Jeffreyi, *A. Murr.*, and
variety, 91.

Kaempferi, *Lamb.*, 77.

Pinus karamana, *Mast.*, 93.

Khutrow, *Royle*, 69.

koraiensis, *Sieb. & Zucc.*, 99.

lambertiana, *Dougl.*, 99.

lanceolata, *Lamb.*, 59.

laricina, *Duroi*, 77.

Laricio, *Poir.*, 91.

Laricio, *Santi*, 95.

Laricio var. *angustisquama*,
Willk., 93.

Laricio var. *austriaca*, *Endl.*,
91.

Laricio var. *cebennensis*,
Gren. and Godr., 93.

Laricio var. *latisquama*, *Willk.*,
91.

Laricio var. *leptophylla*,
Christ, 93.

Laricio var. *poiretiana*,
Antoine, 91.

Laricio var. *stricta*, *Carr.*, 91.

Larix, *L.*, 75.

Latteri, *Madden*, 95.

laxa, *Ehrh.*, 65.

leptolepis, *Endl.*, 77.

leucodermis, *Antoine*, 91.

lindleyana, *Gord.*, 95.

llaviaca, *Schiede & Deppe*, 89.

Loddigesii, *Loud.*, 97.

loiseleuriana, *Carr.*, 97.

longifolia, *Roxb.*, 93.

loudoniana, *Gord.*, 99.

mac-intoshiana, *Lawson*, 89.

macrocarpa, *Lindl.*, 89.

magellensis, *Guss.*, 91.

Mariana, *Duroi*, 69.

maritima, *C. Koch*, 91.

maritima, *Ait.*, 91.

maritima, *Pall.*, 93.

maritima, *Lamb.*, 89.

maritima, *Poir.*, 95.

massoniana, *Hort.*, 89.

massoniana, *Sieb. & Zucc.*, 99.

Pinus Menziesii, *Dougl.*, 73.

mertensiana, *Bong.*, 63.

microcarpa, *Lamb.*, 77.

mitis, *Michx.*, 93.

monophylla, *Torr.*, 93.

montana, *Duroi*, and
varieties, 93, 95.

Montezumae, *Lamb.* var.
lindleyana, 95.

monticola, *Dougl.*, 100.

Mughus, *Jacq.*, 97.

Mughus, *Scop.*, 95.

Mughus, *Wahlenb.*, 95.

Mughus var. *Pumilio*, 95.

muricata, *D. Don*, 95.

murrayana, *Lemmon*, 89.

neglecta, *Hort.*, 93.

nepalensis, *Royle*, 95.

nigra, *Ait.*, 69.

nigra, *Link.*, 91.

nigricans, *Hoess*, 91.

nobilis, *Dougl.*, 83.

Nuttallii, *Parl.*, 77.

Omorika, *Panc.*, 73.

orientalis, *L.*, 71.

osteosperma, *Engelm.*, 89.

pallasiana, *Lamb.*, 93.

palustris, *Mill.*, 95.

paroliniana, *Webb*, 97.

parryana, *Engl.*, 95.

parryana, *Gord.*, 97.

parviflora, *Sieb. & Zucc.*, 100.

pattoniana, *Parl.*, 63.

pectinata, *Lam.*, 85.

pendula, *Ait.*, 77.

persica, *Hort.*, 89.

Peuke, *Griseb.*, 100.

Picea, *L.*, 85.

Pinaster, *Bess.*, 91.

Pinaster, *Loud.* (in part), 99.

Pinaster, *Soland.*, and
variety, 95.

Pindrow, *Royle*, 85.

Pinus Pinca, *Habl.*, 93.

Pinea, *L.*, 95.

Pinsapo, *Parl.*, 83.

Pithyusa, *Strangw.*, 89.

ponderosa, *Dougl.*, 95.

Popocatepetlii, *Roezl.*, 99.

Pumilio, *Haenke*, 95.

pungens, *Miehx.*, 97.

pyrenaica, *Lapeyr.*, 97.

pyrenaica, *Lapeyr.* (in part), 93.

radiata, *D. Don*, 91.

radiata, *Hort.*, 95.

resinosa, *Soland.*, 97.

rigensis, *Desf.*, 97.

rigida, *Mill.*, 97.

rigida var. *serotina*, *Loud.*, 97.

romana, *Hort.*, 91.

rubra, *Lamb.*, 71.

rubra, *Miehx.*, 97.

rubra, *Mill.*, 97.

rubra, *Sieb.*, 99.

rubra var. *violacea*, *Endl.*, 65.

sabiniana, *Dougl.*, 97.

Salzmanni, *Dun.*, 93.

sanguinea, *Lapeyr.*, 93.

selenolepis, *Parl.*, 85.

serotina, *Michx.*, 97.

Shasta, *Carr.*, 87.

sitchensis, *Bong.*, 73.

smithiana, *Lamb.*, 69.

Strobus var. *pygmaea*, *Hort.*, 100.

Strobus, *L.*, and varieties, 101.

sylvestris, *Baumg.*, 91.

sylvestris, *L.*, and varieties, 97.

sylvestris, *Thunb.*, 99.

sylvestris var., *L.*, 95.

sylvestris var. *genuina*, *Heer*, 97.

sylvestris var. *Pumilio*, 95.

tabuliformis, *Hort.*, 89.

Pinus Taeda, *L.*, 99.

Taeda var. *aloppecuroidea*, *Loud.*, 97.

Taeda var. *variabilis*, *Ait.*, 93.

taurica, *Hort.*, 91.

taxifolia, *Lamb.*, 87.

Thunbergii, *Parl.*, and varieties, 99.

Tsuga, *Antoine*, 63.

tuberculata, *D. Don*, 91.

tuberculata, *Gord.*, 99.

uncinata, *Ram.*, 93.

variabilis, *Lamb.*, 91.

variabilis, *Parsh.*, 93.

Veitchii, *Roezl.*, 99.

venusta, *Dougl.*, 79.

virginiana, *Mill.*, 91.

Platycladus dolabrata, *Spach*, 51.
stricta, *Spach*, 51.

Podocarpeae

Podocarpus alpina, *R. Br.*, 23.

amara, *Blume*, 23.

andina, *Poepp.*, 25.

argotaenia, *Hance*, 25.

chilina, *Rich.*, 23.

cupressina, *R. Br.*, 23.

dacrydioides, *A. Rich.*, 23.

elongata, *L'Herit.*, 23.

ferruginea, *D. Don*, 25.

insignis, *Hemsl.*, 25.

japonica, *Sieb.*, 25.

koraianus, *Hort.*, 19.

macrophylla, *D. Don*, 25.

Nageia, *R. Br.*, and variety, 25.

neriifolia, *D. Don*, 25.

nubigena, *Lindl.*, 25.

pectinata, *Panch.*, 25.

purdieana, *Hook.*, 25.

salicifolia, *Klotzsch & Karst.*, 25.

spicata, *R. Br.*, 25.

taxifolia, *H. B. K.*, 25.

Totara, *G. Benn.*, 25.

Prumnopitys elegans, *Philippi*, 25.

spicata, *Mast.*, 25.

taxifolia, *Mast.*, 25.

Pseudolarix Fortunei, *Mayr*, 77.

Kaempferi, *Gord.*, 77.

Pseudotsuga Douglasii, *Carr.*, and varieties, 87.

taxifolia, *Britton*, 87.

Retinispora dubia, *Hort.*, 49.

ericoides, *Gord.*, 47.

ericoides, *Hort.*, 53.

flavescens, *Hort.*, 53.

juniperoides, *Carr.*, 53.

meldensis, *Hort.*, 55.

obtusata, *Sieb. & Zucc.*, 45.

pisifera, *Sieb. & Zucc.*, 45.

rigida, *Carr.*, 53.

squarrosa, *Hort.*, 53.

Sabina, 27.

Salisburia adiantifolia, *Salisb.*, 19.

Salisburinæ, 19.

Sapinæ, 77.

Saxegothea conspicua, *Lindl.*, 25.

Schubertia sempervirens, *Spach*, 57.

Sciadopitys verticillata, *Sieb. & Zucc.*, 57.

Sequoia gigantea, *Torr.*, and varieties, 57.

sempervirens, *Endl.*, and varieties, 57.

Wellingtonia, *Secm.*, 57.

Silvers Firs, 79.

Stachycarpus andina, *Van Tieghem*, 25.

Strobus, 99.

Taxaceæ, 19.

Taxeæ, 21.

Taxinæ, 21.

Taxodineæ, 57.

Taxodium distichum, *Rich.*, and variety, 59.

heterophyllum, *Brongn.*, 59.

japonicum, *Brongn.*, 59.

microphyllum, *Brongn.*, 59.

sempervirens, *Lamb.*, 57.

sinense, *Gord.*, 59.

washingtonianum, *Winsl.*, 57.

Taxus baccata, *L.*, and varieties, 21, 23.

canadensis, *Willd.*, and variety, 23.

cuspidata, *Sieb. & Zucc.*, 23.

Harringtonia, *Knight & Perry*, 19.

japonica, *Hort.*, 19.

Tetraclinis articulata, *Mast.*, 35.

Thuinae, 37.

Thuiopsis borealis, *Hort.*, 43.

troubetskoyana, *Hort.*, 43.

Tschugatskoyii, *Hort.*, 43.

Thuya acuta, *Moench*, 51.

argentea, *Hort.*, 51.

articulata, *Vahl*, 35.

asplenifolia, *Hort.*, 49.

aurea, *Hort.*, 51.

australis, *Hort.*, 55.

caucasica, *Hort.*, 47.

caucasica, *Hort. aliq.* 49.

chilensis, *D. Don*, 55.

compacta, *Hort.*, 53.

craigiana, *Hort.*, 49.

craigiana, *A. Murr.*, 57.

dolabrata, *L.f.*, and varieties, 51.

filiformis, *Lodd.*, 55.

flabellata, *Hort.*, 49.

flagelliformis, *Hort.*, 55.

frencloides, *Hort.*, 53.

gigantea, *Hort.*, 57.

gigantea, *Nutt.*, and varieties, 49.

Thuya gigantea var. *japonica*,
Frauch & Sav., 51.
hybrida, *Hort.*, 55.
intermedia, *Hort.*, 53.
japonica, *Hort.*, 53.
japonica, *Maxim.*, 51.
Lobbi, *Hort.*, 49.
lycopodioides, *Hort.*, 49.
meldensis, *Hort.*, 55.
Menziesii, *Carr.*, 49.
Menziesii, *Dougl.*, 49.
nana, *Hort.*, 53.
nana aurea, *Hort.*, 51.
nana compacta aurea, *Hort.*,
 51.
nepalensis, *Hort.*, 53.
obtusa, *Mast.*, and variety, 45.
obtusa, *Moench.*, 47.
occidentalis, *L.*, 47.
occidentalis var. *compacta*,
Knight, 49.
occidentalis var. *plicata*, *Hort.*,
 49.
odorata, *Marsh.*, 47.
Ohlendorfi, *Hort.*, 49.
orientalis, *L.*, and varieties,
 51.
orientalis *aureo - variegata*,
Hort., 51.
orientalis cupressoides, *Hort.*,
 55.
orientalis var. *flagelliformis*,
Jacques, 55.
orientalis meldensis, *Hort.*, 55.
orientalis var. *stricta*, *Loud.*,
 55.
orientalis var. *tatarica*, *Loud.*,
 55.

Thuya pendula, *Lamb.*, 55.
pisifera, *Mast.*, 45.
plicatilis, *Hort.*, 49.
pyramidalis, *Tenore*, 55.
sibirica, *Hort.*, 47.
sibirica, *Hort. alig.*, 49.
Standishii, *Carr.*, 51.
tatarica, *Forbes*, 55.
tetragona, *Hort.*, 49.
variegata, *Hort.*, 51.
wareana, *Booth*, 49.
zuccariniana, *Hort.*, 53.
Thuyopsis, 51.
dolabrata, *Sieb. & Zucc.*, 51.
laetevirens, *Lindl.*, 51.
Standishii, *Gord.*, 51.
Torreya californica, *Torr.*, 19.
Myristica, *Hook.*, 19.
nucifera, *Sieb. & Zucc.*, 19.
taxifolia, *Arn.*, 19.
Tsuga ajanensis, *Regel*, 73.
brunoniana, *Carr.*, 61.
canadensis, *Carr.*, and varie-
 ties, 63.
caroliniana, *Engelm.*, 63.
diversifolia, *Maxim.*, 63.
Douglasii, *Carr.*, 87.
mertensiana, *Carr.*, 63.
pattoniana, *Engelm.*, 63.
Sieboldi, *Carr.*, and variety
 63.
Tsuga Tsuga, *A. Murr.*, 63.
Washingtonia californica, *Winsl.*,
 57.
Wellingtonia gigantea, *Lindl.*, 57.
Widdringtonia glauca, *Hort.*,
 47.
Whytei, *Rendle*, 35.



QK 73 .K4 A28

Royal Botanic Garde/Hand-list of Conifer

gen



3 5185 00114 2379

